

Nicholas P. Karampetakis

PERSONAL

Name : Nicholas P. Karampetakis
Birth Date : December 28, 1967
Place of Birth : Drama, GREECE
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CURRENT JOB RESPONSIBILITIES

Professor, Department of Mathematics, Aristotle University of Thessaloniki, Thessaloniki, Greece (Head of the Department of Mathematics of Aristotle University of Thessaloniki for the period September 1, 2013 – October 31, 2015).

Tutor, School of Science and Technology, Department of Computer Sciences, Greek Open University, Patras, Greece.

EDUCATIONAL BACKGROUND

B. Sc. in Mathematics (with excellence) 1985-1989	Department of Mathematics, Aristotle University Thessaloniki, Thessaloniki 54124, GREECE
Ph. D. in Mathematics (with excellence) 1989-1993	Department of Mathematics, Aristotle University Thessaloniki, Thessaloniki 54124, GREECE
Postgraduate studies in Open and Distance Learning (with excellence) 1998-1999	Greek Open University, Patra, Greece.

SCHOLARSHIPS – FELLOWSHIPS

1995-1998	Scholarship for undergraduate studies (Greek National Foundation) .
1990-1993	Scholarship for postgraduate studies (Greek National Foundation).
26/1/91-30/3/91	Fellowship (British Council Office).
28/4/92 – 18/7/92	Research studentship (Loughborough University of Technology).
1/11/94 – 1/9/95	EPSRC Grant from the British government.
1/1/98 – 28/2/99	Scholarship for postdoctoral studies (Greek National Foundation).

EMPLOYMENT RECORD

2014 - today	Professor on “ <i>Mathematical Theory of Automatic Control Systems</i> ”, Department of Mathematics, Aristotle University of Thessaloniki, Thessaloniki, Greece.
2009 - 2014	Associate Professor on “ <i>Mathematical Theory of Automatic Control Systems</i> ”, Department of Mathematics, Aristotle University of Thessaloniki, Thessaloniki, Greece.
2002 – now	Tutor, School of Science and Technology, Department of Computer Sciences, Greek Open University, Patras, Greece.
2000 – 2009	Assistant Professor on “ <i>Mathematical Theory of Automatic Control Systems</i> ” or “ <i>Numerical Analysis</i> ” or “ <i>Analysis and Synthesis of Automatic Control Systems</i> ”, , Department of Mathematics, Aristotle University of Thessaloniki, Thessaloniki, Greece.
1994 - 1998	Research Associate (Grade 1A), Department of Mathematics, Aristotle University of Thessaloniki, Thessaloniki, Greece.
1996 – 1999	Research Assistant, Technological Institute of Kavala, Kavala, Greece.
1995 – 2000	Computer Educator in High School.
1994 - 1995	Research Associate (Grade 1A), Department of Mathematical Sciences, Loughborough University of Technology.

1991 – 1993 Teaching Assistant, Department of Mathematics, Aristotle University of Thessaloniki, Thessaloniki, Greece.

RESEARCH EXPERIENCE

1991 - 1993 Development of algorithms for analysis and synthesis of multivariable Control Systems. Funded by the Greek Secretariat of Reserch and Technology (GSRT). (Project No. : 1393).

1994 - 1997 European Network for robust and Adaptive Control (EURACO). Funded by the E.U. under the Human Capital and Mobility framework. (Training & Mobility Research (TMR) Programme) (No. EOK-ERBCHRXCT930395)

1995 Analysis, Synthesis and Design of singular multivariable Automatic Control systems. Funded by GSRT under the framework of "Bilateral Cooperation between Greece and Czech Republic" (Project No. : 1582).

1996 - 1998 Development of a software package of multivariable Control Systems. Funded by GSRT - PENED 95 project. (Project No. : 1630).

1999 – 2001 Development of algorithms and of a web-based mathematical package for analysis and synthesis of multivariable Control Systems. Funded by GSRT. (Project No. 1974).

2000 – 2002 Software Package for industrial and educational uses on Automatic Control. Funded by Demokritos Hight Tech Group Ltd. (Project No. 20196).

2002 – 2003 Development of a software package in Mathematica for the analysis and synthesis of Linear Multivariable Control Systems. The collaboration is part of the program "Value Added Partner" of Wolfram Research Intl.

2003 – 2005 Computer aided analysis and synthesis of discrete time filters in telecommunications via contemporary polynomial matrix methods (Project No. 10120)

- 2003 – 2008** Participation in the program of reforming the undergraduate curriculum of the Department of Mathematics which is funded by the *Operational Programme for Education and Initial Vocational Training (ΕΠΕΑΕΚ II)* (Project No. 21484)
- 2007 – 2008** Reviewer of learning material for the Module “Mathematics I” of the undergraduate course “Studies in Natural Sciences” of the Greek Open University.
- 2006-2008** Development of algorithms and implementation in Mathematica for analysis and synthesis of multivariable Control Systems. "Bilateral Cooperation between Greece and Non European Community Partners ", in collaboration with a U.C. Company *Wolfram Research Inc.* and a Greek Company *Zenon* Funded by GSRT. (Project No. 1974).
- 2009** Coordinator in :
Convention:"6th International workshop on Multidimensional (nDS) systems_NDS2009"
(Proj. No. 84342 and 84388)
- 2012** Coordinator of the project ACTION C: Strengthening basic research (second phase): Accurate modeling of dynamic systems, funded by the Research Committee of Aristotle University of Thessaloniki (Project No. 88014).
- 2002 – 2013** Postgraduate studies in the Mathematics Department (Project No. 21052)
- 2012 – 2015** Participation in the program «Numerical and Symbolic Polynomial Methods for Mathematical Systems Theory» (Program Archimedes III (No. 365 proposal, Acronym NSPMST).

TEACHING EXPERIENCE

- 1991 – 1993** Teaching exercises in Classical and Modern Control Theory and assist in student's research projects in Linear System Theory, Department of Mathematics, Aristotle University of Thessaloniki
- 1994 - 1998** Computer Programming I, Computer Programming II, Department of Mathematics, Aristotle University of Thessaloniki.

- 1995 – 2000** Computer Educator in Secondary Education.
- 1996 – 1999** Introduction to Computers, Introduction to Programming, Technological Institute of Kavala, Greece.
- 1999** Responsible for the organization of an introductory course to “New Technologies in Mathematics” for Mathematicians, sponsored by the Greek Government.
- 2000 – 2002** The Programming Language Pascal, Computer Programming II (Fortran), Department of Mathematics, Aristotle University of Thessaloniki.
- 2002 – now**
- Undergraduate Courses**
Symbolic Programming Languages (with Mathematica), Introduction to Computer Programming (with Fortran 90/95)
- Postgraduate Courses**
Computer aided analysis and synthesis of linear systems, Optimal Control, Discrete Time Systems, Analysis and Synthesis of Linear Multivariable Systems.
- During the next year 2013 – 2014, I am responsible for the following courses :
- First Semester :*
Introduction to Computer Programming (with Fortran 90/95), Classical Control Theory
- Second Semester :*
Symbolic Programming Languages (with Mathematica), Modern Control Theory, Optimal Control (postgraduate course)

ADMINISTRATION

- 11/99 – 12/99** Coordinator of a training program for Mathematicians entitled "On the use of computers for mathematicians"
- 7/1/2002-17/1/2002**
7/1/2003-24/1/2003
2004-05 Participation in the evaluation of graduates transfer from abroad to Aristotle University of Thessaloniki and graduates from Technological Institutes students that want to study in the Aristotle University of Thessaloniki.
- 1/1/2002 – 1/1/2004** Coordinator in Educational Donation Program signed between the Department of Mathematics and company Compaq.

2000-2013

Developer of the website :
<http://anemos.math.auth.gr>
that support with instruction materials undergraduate
and graduate students but also contribute to the
websites :

<http://anadrrasis.web.auth.gr/>

<http://anadrrasis.web.auth.gr/cacsd/>.

2000 - 13

Participation in a committee, that treats topics and
elements requiring immediate attention for the opening
of the Postgraduate Program of the Department of
Mathematics of Aristotle University of Thessaloniki.

Responsible for preparing the financial proposal to the
Ministry of Education for the Postgraduate Program of
the Department of Mathematics of Aristotle University
of Thessaloniki (for hardware-software).

Participation in a Committee for the selection of
candidates graduate students for the years 2003-13.

Member of the Steering Committee of the
Postgraduate Program of the Department of
Mathematics of Aristotle University of Thessaloniki.

Responsible for the finances of the specialization
*"Theoretical Informatics and Systems & Control
Theory"* of the Postgraduate Program of the
Department of Mathematics of Aristotle University of
Thessaloniki.

Responsible for the organization seminars on the
postgraduate specialization *"Theoretical Informatics
and Systems & Control Theory"* in the subject: *"Control
Theory"*

Responsible for the preparation of the study guide of
the Department of Mathematics for the academic years
2004-2008.

Create online courses for the course *Introduction to
Programming*.

Member of the library committee of the Department of
Mathematics for the years 2004-2006.

Member of the committee for the creation of the
website of the Department of Mathematics for the
years 2005-2008.

Full member of the senate of Aristotle University of
Thessaloniki for the years 2007-08.

Member of the committee for the calculation of a coefficient related to the allocation of financial of the Faculty of Sciences of the Aristotle University of Thessaloniki, into separate sections.

Member of a committee member for the allocation of a faculty position given to the Department of Mathematics, Aristotle University (2008).

Committee member for drafting and proposal for renewal of the cognitive domains of all of State Scholarships Foundation scholarships for postgraduate studies in Mathematics at home and abroad, etc.

Committee member for the proposal "Applications of Mathematics in Industry and Business" of the Department of Mathematics for the program "Lifelong Learning in Universities and Universities Alumni Update knowledge" which is approved by the Ministry of Education.

Participation on the Board of Directors, in curriculum committee, and the Committee of the Postgraduate Program of the Department of Mathematics of Aristotle University of Thessaloniki.

2013-15 Participation in a Committee of the Aristotle University of Thessaloniki for the International Monitoring of Academic Ranking of World Universities.

2009-2013 Participation in the Internal Evaluation Group of the Department of Mathematics of the Aristotle University.

1/9/2011 - 31/12/2012 Director of the Department of Computer Science and Numerical Analysis and the Computer Laboratory of the Department of Mathematics.

Participation in internal and external committees for the election of faculty members.

1/9/2013 - 31/8/2015 Head of the School of Mathematics, Aristotle University of Thessaloniki.

Supervision of dissertations

Supervisor in 44 finished M.Sc. thesis in Control Theory (during the period 2002 – 2015) (see <http://anemos.web.auth.gr/thesis/index.htm>).

Participation in the internal committee of 48 finished M.Sc. Thesis (apart of the ones that I was supervisor).

Supervisor in 2 Ph.D. Thesis

1. Dimitris Varsamis, 2012, On the development of computational methods for the solution of control theory problems, Department of Mathematics, Aristotle University of Thessaloniki.
2. Anastasia Gregoriadou, 2013, Analysis and synthesis of discrete time control systems through algebraic-polynomial approximation , Department of Mathematics, Aristotle University of Thessaloniki.

I helped in the supervision of the following Ph.D. Students of Prof. Clive Pugh, during my stay in Loughborough University of Technology :

1. Sajid Mahmood, 1996, *Some Structural Problems Arising in the Generalized Theory of Linear Multivariable Control Systems*, Ph. D. Thesis, Loughborough University of Technology, U.K.
2. Jones J., 1999, *Solutions In Generalised Linear Systems Via Maple*, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K..

and the Ph.D. Students of Prof. Vardulakis :

3. E. N. Antoniou, 2000, *Analysis of Discrete-Time Linear Singular Systems*, PhD thesis, Aristotle University of Thessaloniki - Department of Mathematics , Aristotle University of Thessaloniki, 2000,
4. P. Tzekis, 2001, *Implementation of computer algorithms for analysis and synthesis of linear multivariate systems in Control*, Ph.D. Thesis, Department of Mathematics, Aristotle University of Thessaloniki, Thessaloniki, Greece.
5. S. Vologiannidis, 2005, *Algebraic and polynomial computational methods in control theory*, Ph.D. Thesis, Department of Mathematics, Aristotle University of Thessaloniki, Thessaloniki, Greece.

4 Ph.D. Students are under my supervision at this moment :

1. S. Karathanasi, 2007, *The use of distribution theory on the analysis of linear systems*.
2. G. Pechlivanidou, 2010, *Discretization of linear multivariable systems*.
3. A. Karetsou, 2012, *Linearization of multidimensional, multivariable systems*.
4. L. Moysis, 2013, *Reachability and observability of discrete linear multivariable systems*.

Participation in the Internal Committee of 6 Ph.D. Students and the Internal/External Committee of 6 Ph.D. holders (other than the ones that I supervised).

International Cooperations in M.Sc. level (responsible for the ERASMUS program)

1. Prof. Eva Zerz, Department of Mathematics, when she was in University of Kaiserslautern, Germany

2. Prof. N. Karcanias, Control Engineering Centre & Centre of Systems and Modelling, School of Engineering and Mathematical Sciences, CITY University, U.K.
3. Prof. K. Galkowski, Institute of Control and Computation Engineering, The University of Zielona Gora, Zielona Gora, Poland
4. Prof. M. Sebek, Department of Control Engineering, Faculty of Electrical Engineering, Czech Technical University in Prague, Czech Republic
5. Prof. A.C. Pugh, Department of Mathematical Sciences, Loughborough University, U.K.
6. Prof. Neil Munro, University of Manchester Institute of Science and Technology (UMIST)

SCIENTIFIC VISITS

August 26 2002 – September 5 2002	Scientific visit to Zielona Gora, Poland (Greek Ministry of Education and Religion).
January 25, 2005 – February 10, 2005	Scientific visit (ERASMUS) to Loughborough University of Technology, England.
July 3-8, 2005	Scientific visit (ERASMUS) to Czech Technical University in Prague, Czech Republic.
July 10-15, 2005	Scientific visit (ERASMUS) to University of Kaiserslautern, Germany.
January 22-27, 2007	Scientific visit (ERASMUS) to Loughborough University of Technology, England.
July 23, 2007	Scientific visit to the Department of Mathematics, Northern Illinois University where I gave the talk « <i>Linearizations of polynomial matrices with symmetries</i> ».
July 24, 2007	Scientific visit to the Wolfram Research Inc. (Champaign, Illinois). I gave the talk : «Developing a descriptor systems package to extend Control System Professional»
February 2010 - March 2010	Sabatical leave from my Department in order to work at the Department of Electrical and Computer Engineering, Democritus University of Thrace.
April 2010 - June 2010	Sabatical leave from my Department in order to work at the Department of Electronic and Electrical Engineering, Loughborough University of Technology, England, U.K..
December 13-17, 2010	Scientific visit (ERASMUS) to City University, England.

October 1, 2012 – January 31, 2013 – Sabbatical leave from my Department in order to work at the Department of Electrical and Computer Engineering, Democritus University of Thrace.

During all my Erasmus visits, I gave seminars.

MEMBERSHIPS

1989 – 1993	Greek Mathematical Society
1998 – 2003	American Mathematical Society
1992 – now	IEEE Control System Society
1992 – 2003	IEEE Education Society
1994	IEEE Computer Society
1992 – 1996	SIAM Society (Dynamical Systems Activity Group, Linear Algebra Activity Group, Control Systems Activity Group)
1993	Graduate member of IMA.
1995 – 1996	Member of the New York Academy of Sciences
2001-2009	Member of the IFAC Technical Committee on Linear Systems.
2003- now	Vice-Chair to IEEE Action Group on Symbolic Methods for CACSD.
2011 – now	Senior Member of IEEE

EDITORIAL BOARD

- 1) 2008 – now** Associate Editor to the *Multidimensional Systems and Signal Processing*.
- 2) 2010 - now** Associate Editor to the *International Journal of Applied Mathematics and Computer Science*.
- 3) 2013** Editor to the open access journal *Systems Science and Control Engineering* της Taylor & Francis.
- 4) 2013** Associate Editor to the open access journal *International Journal of Circuits, Systems and Signal Processing* της North Atlantic University Union.

REVIEWER

Journals

1. *IEEE Transactions on Automatic Control*
2. *International Journal of Control*
3. *Circuit Systems and Signal Processing*
4. *Systems and Control Letters*
5. *Linear Algebra and its Applications*
6. *Korean Journal of Computational and Applied Mathematics*
7. *Journal for Science*
8. *International Journal of Systems Science.*
9. *Journal of Circuits, Systems and Computers.*
10. *Journal of Applied Numerical Analysis and Computational Mathematics.*
11. *Numerical Algorithms.*
12. *IEEE Transactions on Circuits and Systems I*
13. *International Journal of Applied Mathematics and Computer Science*
14. *Journal of Computational and Applied Mathematics*
15. *Structural and Multidisciplinary Optimization*
16. *Multidimensional Systems and Signal Processing.*
17. *Kybernetika.*
18. *Asian Journal of Control.*
19. *Journal of Applied Mathematics and Decision Sciences.*
20. *Journal of Applied Mathematics and Computation.*
21. *IMA Journal of Mathematical Control and Information.*
22. *Simulation Modelling Practice and Theory.*
23. *Mathematical Methods in the Applied Sciences*
24. *The Arabian Journal for Science and Engineering*
25. *Applied Numerical Mathematics*
26. *Computers and Mathematics with Applications*
27. *Linear and Multilinear Algebra*
28. *Mathematics of Control, Signals, and Systems*

Conferences

1. *34th IEEE Conference on Decision and Control*, December 13-15, 1995, New Orleans, Louisiana, U.S.A..
2. *4th IEEE Mediterranean Symposium on New Directions in Control and Automation*, 10-14 June, 1996, Chania, Crete, Greece.
3. *European Control Conference 1997*, 1-4 July 1997, Brussels, Belgium.
4. *36th IEEE Conference on Decision and Control*, December 10-12, 1997, San Diego, CA, U.S.A..
5. *IFAC Conference on SYSTEM STRUCTURE AND CONTROL*, Nantes, France, 8-10 July 1998.
6. *6th European Control Conference 2001*, 4-7 September, Porto, Portugal.
7. *15th IFAC World Congress 2002.*
8. *9th IEEE International Conference on Electronics, Circuits and Systems – ICECS 2002.*
9. *2003 American Control Conference.*
10. *11th IEEE Mediterranean Symposium on New*

Directions in Control and Automation, June 17-20, 2003, Rodos, Greece.

11. *42nd IEEE Conference on Decision and Control*, 2003.
12. *2004 American Control Conference*, Boston, June, 2004.
13. *12th IEEE Mediterranean Electrotechnical Conference - MELECON 2004*, May 12-15, 2004.
14. *IFAC World Congress Prague, Prague, July 4-8, 2005.*
15. *13th IEEE Mediterranean Conference on Control and Automation*, June 27-29, Limassol, Cyprus, 2005.
16. *4th International Workshop on Multidimensional (nD) Systems NDS 2005, July 10-13, 2005, University of Wuppertal, Wuppertal, Germany.*
17. *5th International Conference on Technology and Automation ICTA'05, October 15-16, 2005.*
18. *IEEE International Symposium on Computer-Aided Control Systems Design CACSD'06, October 4-6, 2006, Munich Germany.*
19. *45th IEEE Conference on Decision and Control, CDC'06, December 2006, San Diego, CA, USA.*
20. *2006 American Control Conference, ACC'06, June 2006, Minneapolis, Minnesota, USA.*
21. *5th International Workshop on Multidimensional (nD) Systems, Aveiro, Portugal, June 27 – 29, 2007.*
22. *3rd IFAC Symposium on System Structure and Control, Foz Do Iguacu, Brazil, October 17-19, 2007.*
23. *46th IEEE Conference on Decision and Control, New Orleans, LA, USA, December 12-14, 2007.*
24. *European Control Conference 2007, Kos, Greece, July 2-5, 2007.*
25. *17th IFAC World Congress, July 6-11, 2008, Seoul, Korea.*
26. *2008 IEEE International Symposium on Decision and Control, San Antonio, Texas, September 3-5, 2008.*
27. *47th IEEE Conference on Decision and Control, Fiesta Americana Grand Coral Beach, Cancun, Mexico, December 9-11, 2008*
28. *European Control Conference 2009, Budapest, Hungary, 23-26 August, 2009.*
29. *17th IEEE Mediterranean Conference on Control and Automation, Thessaloniki, Greece, June 24-26, 2009.*
30. *6th International Workshop on Multidimensional (nD) Systems, Thessaloniki, Greece, June 29 – July 1, 2009.*
31. *49th IEEE Conference on Decision and Control, Atlanta, Georgia, U.S.A., December 15-17, 2010*
32. *18th IFAC World Congress, Milano, Italy, August 28 - September 2, 2011*
33. *2012, American Control Conference, Fairmont Queen Elizabeth, Montreal, Canada June 27-June 29, 2012*
34. *2012, International Conference on Communications, Computing and Control Applications (CCCA'12), December 6-8 12-14, 2012, Marseilles, France.*
35. *51st IEEE Conference on Decision and Control, December 10-13, 2012 at the Grand Wailea, Maui, Hawaii*
36. *20th Mediterranean Conference on Control and Automation. Barcelona, July 3-6, 2012*

37. 3thd International Conference on System and Control, October 29-31, 2013, Algiers.
38. 2013 IEEE Multi-conference on Systems and Control, Hyderabad, India, August 28-30, 2013

Reviewer in Zentralblatt fur Mathematik (135 journal papers and 9 books)

Books

1. [Duan, Guang-Ren](#), **Analysis and design of descriptor linear systems. (English)**, Advances in Mechanics and Mathematics 23. Dordrecht: Springer (ISBN 978-1-4419-6396-3/hbk; 978-1-4614-2684-4/pbk; 978-1-4419-6397-0/ebook). xix, 494 p. EUR 62.95/net; SFR 98.00; £ 56.99; \$ 84.95 (2010).
2. [Bernstein, Dennis S.](#), **Matrix mathematics. Theory, facts, and formulas. 2nd expanded ed. (English)**, Princeton, NJ: Princeton University Press (ISBN 978-0-691-14039-1/pbk; 978-0-691-13287-7/hbk). xxxix, 1139 p. \$ 69.50, £ 48.50/pbk; \$ 125.00, £ 85.00/hbk (2009).
3. [Antsaklis, Panos J](#); [Michel, Anthony N.](#), **A linear systems primer. (English)**, Boston, MA: Birkhuser (ISBN 978-0-8176-4460-4/pbk). xvi, 517 p. EUR 49.90/net; SFR 85.00; £ 38.50; \$ 59.95 (2007).
4. [Kaczorek, Tadeusz](#), **Polynomial and rational matrices. Applications in dynamical systems theory. (English)**, Communications and Control Engineering. Dordrecht: Springer (ISBN 1-84628-604-2/hbk). xvi, 503 p. EUR 99.95/net; \$ 129.00; £ 85.00 (2007).
5. [Bernstein, Dennis S.](#), **Matrix mathematics. Theory, facts, and formulas with application to linear systems theory. (English)**, Princeton, NJ: Princeton University Press (ISBN 0-691-11802-7/hbk). xxxv, 726 p. £ 58.00 (2005).
6. [Albertos, P.](#); [Sala, A.](#), **Multivariable control systems. An engineering approach. (English)**, Advanced Textbooks in Control and Signal Processing. London: Springer (ISBN 1-85233-738-9/pbk). xviii, 340 p. EUR 69.95/net; sFr 123.50; £ 35.00; \$ 64.95 (2004).
7. [D'Azzo, John J.](#); [Houpis, Constantine H.](#); [Sheldon, Stuart N.](#), **Linear control system analysis and design with MATLAB. With CD-ROM. 5th revised and expanded ed. (English)**, Control Engineering (Boca Raton) 14. New York, NY: Marcel Dekker (ISBN 0-8247-4038-6/hbk). xvi, 839 p. \$ 165.00 (2003).
8. [Ben-Israel, Adi](#); [Greville, Thomas N.E.](#), **Generalized inverses. Theory and applications. 2nd ed. (English)**, CMS Books in Mathematics/Ouvrages de Mathematiques de la SMC. 15. New York, NY: Springer. xv, 420 p. EUR 74.95/net; sFr. 124.50; £57.50; \$ 69.95 (2003).
9. [Wang, Qing-Guo](#), **Decoupling control. (English)**, Lecture Notes in Control and Information Sciences. 285. Berlin: Springer. x, 369 p. EUR 87.50 (net); sFr 145.50; £60.00; \$ 95.80 (2003).

Reviewer in Mathematical Reviews (American Mathematical Society) (72 journal papers)

PARTICIPATION IN CONFERENCES AND WORKSHOPS

- 1993** 1st IEEE Mediterranean Symposium on New Directions in Control Theory and Applications, June 21-23, 1993, Chania, Crete, GREECE
- 1994** 2nd IEEE Mediterranean Symposium on New Directions in Control Theory and Applications, June 19-22, 1994, Chania, Crete, GREECE (Co-Chairman).
- 1996** 4th IEEE Mediterranean Symposium on New Directions in Control Theory and Applications, June 10-14, 1996, Chania, Crete, GREECE (Co-Chairman).
- 1996** EURACO Workshop on "Control of Nonlinear Systems : Theory and Applications", 13th-17th May 1996, Algarve, Portugal.
- 1997** 4rth European Control Conference, 1-4 July, 1997, Brussels, Belgium.
- 2000** 7th IEEE Mediterranean Conference on Control & Automation, July 2000, Patra, Greece.
- 2001** 1st IFAC Symposium on System Structure and Control, Prague, Czech Republic.
- 2002** 15th IFAC World Congress, Barcelona, Spain, 2002.
- 2002** 8th IEEE International Conference on Methods and Models in Automation and Robotics, 2-5 September 2002, Szczecin, Poland (invited speaker).
- 2003** 11th IEEE Mediterranean Conference on Control and Automation, 18-20 June 2003, Rhodes, Greece (Organization of two invited sessions in cooperation with Prof. Vardulakis).
- 2004** 12th IEEE Mediterranean Conference on Control and Automation, 6-9 June 2004, Kusadasi, Turkey (Organization of two invited sessions ("Computer Algebra Packages for CACSD") in cooperation with Prof. Vardulakis).
- 2005** IFAC World Congress Prague, Prague, July 4-8, 2005
- 2005** 13th IEEE Mediterranean Conference on Control and Automation, June 27-29, Limassol, Cyprus, 2005 (Organization of two invited sessions ("Computer Algebra Packages for CACSD") in cooperation with Prof. Vardulakis)
- 2005** 4rth International Workshop on Multidimensional (nD) Systems NDS 2005, July 10-13, 2005, University of Wuppertal, Wuppertal, Germany.

- 2006** 14th IEEE Mediterranean Conference on Control and Automation, June 28-30, Ancona, Italy, 2006.
- 2006** IEEE International Symposium on System Structure and Control, October 4-6, 2006, Munich, Germany (Organization of one invited session (“Symbolic Methods”) – chairman).
- 2007** 3rd IFAC Symposium on System Structure and Control, Foz do Iguaçu, Brazil, October 17-19, 2007 (member of the International Program Committee).
- 2007** *European Control Conference 2007*, Kos, Greece, July 2-5, 2007 (Organization of two invited sessions (“Computational and Optimization Methods for Control Systems (Part I & II)”) in cooperation with Prof. Datta - chairman).
- 2008** *2008 IEEE International Symposium on Computer-Aided Control System Design (CACSD 2008)*, San Antonio, Texas, USA.
- 2009** *17th IEEE Mediterranean Conference on Control and Automation*, Thessaloniki, Greece, June 24-26, 2009 (member of the International Program Committee).
- 2009** *6th International Workshop on Multidimensional (nD) Systems*, Thessaloniki, Greece, June 29 – July 1, 2009 (general chair).
- 2011** *7th International Workshop on Multidimensional (nD) Systems*, Poitiers, France, 2011 (Member of the International Program Committee)
- 2011** 1st International Conference on Communications, Computing and Control Applications (CCCA’11), March 3-5, 2011, Hammamet, Tunisia (Publication Co-Chair)
- 2012** 20th International Symposium on Mathematical Theory of Networks and Systems, Melbourne, Australia, July 9-13, 2012
- 2012** *2nd International Conference on Communications, Computing and Control Applications (CCCA’12)*, December 6-8 12-14, 2012, Marseilles, France.
- 2013** CoDIT 2013 : IEEE - 2013 International Conference on Control, Decision and Information Technologies, May 6-8, 2013 at Hammamet, Tunisia.
- 2013** *21st IEEE Mediterranean Conference on Control and Automation*, Platanias, Chania, Crete, Greece, June 25-28, 2013
- 2014** *22nd IEEE Mediterranean Conference on Control and Automation*, Palermo, Italy, July 16-19, 2014
- 2014** 2nd International Conference on Control, Decision and Information Technologies (CoDIT’14), Metz, France, November

3-5, 2014

2015 14th European Control Conference, Linz, Austria, July 15-17, 2015

PARTICIPATION IN THE ORGANIZATION OF INVITED SESSIONS IN INTERNATIONAL WORKSHOPS-CONFERENCES

- 1) In cooperation with Prof. A. I. Vardulakis, Invited Sessions: “Advanced Numerical Methods in System and Control Theory” and “Computational Toolboxes in Control Design”, 11th Mediterranean Conference on Control and Automation MED’03 (June 17-20 2003, Rhodes, Greece).
- 2) In cooperation with Prof. A. I. Vardulakis, Invited Session: “Computational methods for CACSD”, 12th Mediterranean Conference on Control and Automation MED’04 (June 6-9 2004, Kusadasi, Turkey).
- 3) In cooperation with Prof. A. I. Vardulakis, Invited Session: “Computational methods for CACSD”, 13th Mediterranean Conference on Control and Automation MED’05 (June 26-29 2005, Lemessos, Cyprus).
- 4) In cooperation with Prof. A. I. Vardulakis, Invited Session: “Symbolic Methods”, IEEE International Symposium on Computer-Aided Control Systems Design, CACSD’06, Munic, October 2-4, 2006.
- 5) In cooperation with Prof.B. Datta, Invited Sessions: “Computational and Optimization Methods and Software for Control Systems Part i” and “Computational and Optimization Methods and Software for Control Systems Part ii”, European Control Conference 2007, ECC’07, Kos, Greece July 2-5, 2007.
- 6) In cooperation with Prof.B. Datta, 2 Invited Sessions: Computational Methods for Control Systems (Part I and II) at 2011 International Conference on Communications, Computing and Control Applications (CCCA’11), March 3-5, 2011, Hammamet, Tunisia.
- 7) In cooperation with Prof. P. Antsaklis, 2 Invited Sessions (dedicated to the retirement of Prof. A. I. Vardulakis): “Linear Multivariable Control” at the 21st Mediterranean Conference on Control and Automation, Platania-Chania, Crete, 25-28 June, 2013.

Participation in committees of international conferences

- 1) Member of the International Program Committee of the 13th IEEE Mediterranean Conference on Control and Automation, Limassol, Cyprus, June 27-29, 2005.
- 2) Member of the International Program Committee of the 4th International Workshop on Multidimensional (nD) Systems, Wuppertal, Germany, July 10 – 13, 2005.
- 3) Member of the International Program Committee of the 3rd IFAC Symposium on System Structure and Control, Foz Do Iguacu, Brazil, October 17-19, 2007.
- 4) Member of the International Program Committee of the 5th International Workshop on Multidimensional (nD) Systems, Aveiro, Portugal, June 27 – 29, 2007.
- 5) Invited Session Chair of the 2008 IEEE International Symposium on Decision and Control, 2nd IEEE Multi-Conference on Systems and Control, San Antonio, Texas, September 3-5, 2008.
- 6) Member of the International Program Committee of the 17th IEEE Mediterranean Conference on Control and Automation, Thessaloniki, Greece, June 24-26, 2009.
- 7) General Chair of the 6th International Workshop on Multidimensional (nD) Systems, Thessaloniki, Greece, June 29 – July 1, 2009.
- 8) Member of the International Program Committee of the 7th International Workshop on Multidimensional (nD) Systems, Poitier, France, September 5-7, 2011.
- 9) Publication Co-Chair, 2011 International Conference on Communications, Computing and Control Applications (CCCA’11), March 3-5, 2011, Hammamet, Tunisia.
- 10) Publication Co-Chair, 2012 International Conference on Communications, Computing and Control Applications (CCCA’12), December 6-8 12-14, 2012, Marseilles, France
- 11) Publication Co-Chair, CoDIT 2013 : IEEE - 2013 International Conference on Control, Decision and Information Technologies, May 6-8, 2013 at Hammamet, Tunisia.
- 12) International Program Committee (IPC) of ICSC’13, the 3th International Conference on System and Control, October 29-31, 2013 in Algiers.

- 13) International Program Committee of the 8thth International Workshop on Multidimensional (nD) Systems, Erlagen, Germany, September 9-11, 2013.
- 14) International Program Committee (IPC) of the 2nd International Conference on Control, Decision and Information Technologies (CoDIT'14).
- 15) International Program Committee (IPC) of the 2nd International Conference Mediterranean Green Energy Forum, Marrakech- Morocco, 26-28 March 2015.
- 16) International Program Committee of the 9th International Workshop on Multidimensional (nD) Systems, Vila Real, Portugal, September 7-9, 2015.
- 17) International Program Committee of the CESA 2015 : 6th Multi-Conference on Computational Engineering in Systems Applications and CCCA 2015 : 3rd Communications, Computing and Control Applications, March, 24-26 2015, Marrakech, Morocco.
- 18) International Program Committee of the 4th International Conference on Systems and Control (ICSC'15), April 28-30, 2015, Sousse, Tunisia.

Participation in committees of Panellenic conferences or workshops

- 1) Scientific Committee of almost all Mathematical Weeks that are organized by the Local Chapter of the Greek Mathematical Society.
- 2) Scientific Committee of the 26th Panellenic Conference of the Greek Mathematical Society.

MAIN INTERESTS

- Polynomial-Algebraic Methods for the Analysis, Synthesis and Design of Linear Time Invariant Multivariable Systems.
- Computer Aided Control Systems Design.
- Feedback Control Systems.
- Mathematical System Theory.
- Matrix Theory.
- Symbolic Computations.
- Behavior Theory.

CITATIONS

1993

1. Johnson D.S., 1993, *Coprimeness in Multidimensional System Theory and Symbolic Computation.*, Ph. D. Thesis, Loughborough University of Technology, U.K.

1995

1. Vafiadis D., 1995, *Algebraic and Geometric Methods and Problems for Implicit Linear Systems*, Ph. D. Thesis, City University, U.K.

1996

1. Mahmood S., 1996, *Some Structural Problems Arising in the Generalized Theory of Linear Multivariable Control Systems*, Ph. D. Thesis, Loughborough University of Technology, U.K.
2. Rafael Bru, Carmen Coll, Josep Gelonch, 1996, Periodic coprime matrix fraction decompositions, The Electronic Journal of Linear Algebra, Volume 1, pp.44-58. <http://gauss.technion.ac.il/iic/ela>.
3. F. Kraffer, 1996, Polynomial matrix to state space conversion without polynomial reduction, 4th IEEE Mediterranean Symposium on New Directions in Control and Automation, Maleme, Krete, Greece, June 10-13, 1996, ThA-1.5 (<http://med.ee.nd.edu/MED%201996/kraffer.pdf>).

4. Galkowski Krzysztof, 1996, Elementary operations and equivalence of two-dimensional systems., *Int. J. Control*, **63**, No.6, 1129-1148.

1997

5. G Hou, Pugh A.C. and Hayton G.E., 1997, Generalized transfer functions and input-output equivalence, *Int. J. Control*, Vol.68, No.5, 1163-1178.
6. Galkowski Krzysztof, 1997, State-space realizations of multi-input multi-output systems-elementary operations approach., *Int. J. Control*, **66**, No.1, 119-144.
7. Pugh A.C., Hou M. and Hayton G.E., 1997, Input-output structure and transfer equivalent polynomial representation of behavioural systems, Proc. of the 36th IEEE CDC, San Diego, CA, pp.3178-3183.

1998

8. A.C. Pugh, S.J. Mcinerney, M.S. Boudelloua and G.E. Hayton, 1998, Matrix pencil equivalents of a general 2-D polynomial matrix., *International Journal of Control*, **71**, No.6, pp.1027-1050.
9. M Hou, A C Pugh and G E Hayton, 1998, An explicit solution to generalised systems, UKACC International Conference on CONTROL '98, 1-4 September 1998, pp.1552-1557.
10. Abdel-Ghaffar K. A. S., 1998, Long division for Laurent series matrices and the optimal assignment problem, *Linear Algebra and its Applications*, 280, 189-197.

1999

11. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.
12. H. M. Möller, 1999, Exact computation of the generalized inverse and least squares solution. *Ergebnisberichte Angewandte Mathematik Nr. 168* Universität Dortmund.
13. Simon J. McInerney, 1999, Representations and transformations for multi-dimensional systems, Ph.D. Thesis, Department of Mathematical Sciences, Loughborough University of Technology.

2000

14. E. Αντωνίου, 2000, Ανάλυση ιδιαζόντων γραμμικών συστημάτων διακριτού χρόνου, Διδακτορική Διατριβή, Τμήμα Μαθηματικών του Α.Π.Θ.
15. Krzysztof Galkowski, 2000, State-space realizations of MIMO 2D discrete linear systems – Elementary operation and variable inversion approach, *Int. J. Control*, Vol.73, No.3, 242-253.

2001

16. Π. Τζέκης, 2001, Ανάπτυξη αλγορίθμων Η/Υ για την ανάλυση και σύνθεση γραμμικών πολυμεταβλητών συστημάτων αυτομάτου ελέγχου, Διδακτορική Διατριβή, Τμήμα Μαθηματικών του Α.Π.Θ.
17. Ne'stor Javier Thome, 2001, Inversas Generalizadas y su Aplicacio'n a Sistemas Singulares de Control, Tesis Doctoral, Departamento de Matema'tica Aplicada, Universidad Polite'cnica de Valencia.
18. Tolga Guyer, Onur Kiymaz, Goksal Bilgici and Seref Mirasyedioglu, 2001, A new method for computing the solutions of differential equation systems using generalized inverse via MAPLE, *Applied Mathematics and Computation*, 121, 291-299.

19. Krzysztof Galkowski, 2001, Minimal state space realizations for a class of linear, discrete, nD, SISO systems, *Int. J. Control*, Vol.74, No.13, pp.1279-1294.
20. Galkowski K., 2001, *State-space Realizations of Linear 2-D Systems with Extensions to the General nD (n>2) Case*, Springer Verlag, LNCIS 2001.
21. Zaris, P., Wood, J., Pillai, H. and Rogers, E. (2001) On Invariant Zeros of Multidimensional (nD) Linear Systems. In *Proceedings of Proc. of the European Control Conference ECC'01*, pages pp. 1662-1667.
22. P. S. Stanimirovic and M. B. Tasic, 2001, Drazin inverse of one variable polynomial matrices, *FILOMAT*, pp.71-78 ([http://www.pmf.ni.ac.yu/org/filomat/f15/F15\(1\)10.pdf](http://www.pmf.ni.ac.yu/org/filomat/f15/F15(1)10.pdf)).

2002

23. Vakhtang Lomadze, 2002, Rosenbrock models and their homotopy equivalence, *Linear Algebra and its Applications* 351-352: 519-532.
24. Jun Ji, 2002, A finite algorithm for the Drazin inverse of a polynomial matrix, *Applied Mathematics and Computation* 130(2-3): 243-251.
25. Gao Jing, Wang Guo-Rong, 2002, Two algorithms of Drazin inverse of a polynomial matrix, *Journal of Shanghai Teachers University (Natural Sciences)*, Vol.31, No.2, pp.31-38.
26. Henri Bourles, 2002, A new look on poles and zeros at infinity in the light of systems interconnection, *IEEE CDC 2002*, Las Vegas, Nevada, December 10-13, 2002, Paper WeP05-4.

2003

27. Adi Ben-Israel and T. N.E. Greville, 2003, *Generalized Inverses : Theory and Applications*, 2nd Edition.
28. P. Stanimirovic, 2003, A finite algorithm for generalized inverses of polynomial and rational matrices, *Applied Mathematics and Computation*, Volume 144, Issues 2-3, 10 December 2003, Pages 199-214.
29. Henri Bourles, 2003, Impulsive behaviours of discrete and continuous time varying systems: A unified approach, *ECC'03*.
30. M.S. Boudellioua and B. Chentouf, 2003, A pencil equivalent of a general 2-D polynomial matrix, *Proceedings of the 11th Mediterranean Conference on Control and Automation*, June 18-20, Rhodes, Greece.
31. N. Munro, 2003, A polynomial control systems package, *Proceedings of the 11th Mediterranean Conference on Control and Automation*, June 18-20, Rhodes, Greece.
32. Bernhard P. Lampe und Efim N. Rosenwasser, 2003, *Strukturierte Polvorgabe für PMD Prozesse*, *Theoretische Arbeit, Automatisierungstechnik*, 51 (2003) 3 Oldenbourg Verlag pp.119-126.
33. E. Antoniou and A.I. Vardulakis, 2003, Fundamental equivalence of discrete-time AR representations, *Int. J. Control*, Vol.76, No.11, 1078-1088.
34. Predrag Stanimirovic and Milan B. Tasic, 2003, Partitioning method for rational and polynomial matrices, *Applied Mathematics and Computation* 155 (1) : 137-163.
35. Milan B. Tasic, 2003, *Computation of generalized inverses*, Ph.D. Thesis, University of Nis, Serbia.
36. K.P.S. Bhaskara Rao, 2003, *The theory of generalized inverses over commutative rings*, *Algebra, Logic and Applications Series*, Vol.17, Taylor & Francis ISBN 0415272483.
37. Goncharenko VA, Goncharenko VI, 2003, Influence of force structure on the stability, *2003 INTERNATIONAL CONFERENCE PHYSICS AND CONTROL, VOLS 1-4, PROCEEDINGS - VOL 1: PHYSICS AND*

CONTROL: GENERAL PROBLEMS AND APPLICATIONS; VOL 2: CONTROL OF OSCILLATIONS AND CHAOS; VOL 3: CONTROL OF MICROWORLD PROCESSES. NANO- AND FEMTOTECHNOLOGIES; VOL 4: NONLINEAR DYNAMICS AND CONTROL Pages: 1121-1123.

2004

38. Fanbin Bu and Yimin Wei, 2004, The algorithm for computing the Drazin inverses of two-variable polynomial matrices, *Applied Mathematics and Computation*, Vol.147, Issue 3, pp.805-836.
39. P. Krtolica, 2004, Application of Reverse Polish Notation Method and Interpolation in Symbolic Computation, Ph.D. Thesis, Univ. of Ni^a, Serbia.

2005

40. Henri Bourles, 2005, Impulsive systems and behaviors in the theory of linear dynamical systems, *Forum Mathematicum*, Vol.17, Issue:5, pp.781-807.
41. M. D. Petcovic and P. S. Stanimirovic, 2005, Symbolic computation of the Moore–Penrose inverse using a partitioning method, *International Journal of Computer Mathematics*, Vol. 82, No. 3, 355–367.
42. Σ. Βολογιαννίδης, 2005, Αλγεβρο-πολυωνυμικές υπολογιστικές μέθοδοι στη Θεωρία Ελέγχου, Διδακτορική Διατριβή, Τμήμα Μαθηματικών του Α.Π.Θ.
43. Lobo, R., Bitzer D.L., and M.A. Vouk, 2005, "Inverses of Multivariate Polynomial Matrices using Discrete Convolution," *Proceedings of the International Workshop on Coding and Cryptography (WCC05)*, March 14-18, 2005, Bergen (Norway), pp.481-490 (to be published in *Lecture Notes in Computer Science*).
44. Antoniou GE, 2005, n-Order linear state space systems: Computing the transfer function using the DFT, *APPLIED MATHEMATICS AND COMPUTATION*, Vol:170, Issue:2, pp.1077-1084.

2006

45. Bourles H, 2006, Structural properties of linear systems - Part II: Structure at infinity, *ADVANCED TOPICS IN CONTROL SYSTEMS THEORY - LECTURE NOTES FROM FAP 2005 Book Series: LECTURE NOTES IN CONTROL AND INFORMATION SCIENCES Volume: 328 Pages: 259-284*.
46. Lobo R., Bitzer D.L., and M.A. Vouk, 2006, "Locally Invertible Multivariate Polynomial Matrices," *Lecture Notes in Computer Science, Coding and Cryptography Springer Berlin / Heidelberg*, ISSN 0302-9743, Volume 3969/2006, DOI 10.1007/11779360, ISBN 978-3-540-35481-9, DOI 10.1007/11779360_33, Pages 427-441
47. Predrag S. Stanimirovic, Marko D. Petkovic, 2006, Computing generalized inverse of polynomial matrices by interpolation, *Applied Mathematics and Computation*, Vol.172, pp.508-523.
48. P. Zaris, J. Wood, H. Pillai, E. Rogers, 2006, On invariant zeros of linear systems of PDEs, *Linear Algebra and its Applications*, Vol.417, Issue 1, pp.275-297.
49. Marko D. Petkovic, Predrag S. Stanimirovic, 2006, Interpolation algorithm of Leverrier-Faddeev type for polynomial matrices. *Numer. Algorithms*, 42, no.3-4, pp.345-361.
50. M. S. Boudellioua, 2006, An equivalent matrix pencil for two variable polynomial matrices, *International Journal of Applied Mathematics and Computer Science*, Vol.16, No.2, pp.175-181.

51. Iman Mohamed Omar El Nabrawy, 2006, Algebraic issues in Linear Multi-Dimensional System Theory, Ph.D. Thesis, Department of Mathematics, Loughborough University of Technology.

2007

52. Marko D. Petkovic, Predrag S. Stanimirovic, 2007, Interpolation algorithm for computing Drazin inverse of polynomial matrices, *Linear Algebra and its Applications*, Vol.422, Is.2-3, pp.526-539.
53. P.A. Tzekis, 2007, A new algorithm for the solution of a polynomial matrix Diophantine equation, *Applied Mathematics and Computation*, Volume 193, Issue 2, 1 November 2007, Pages 395-407.
54. Milan B. Tasic, Predrag S. Stanimirovic, Marko D. Petkovic, 2007, Symbolic computation of weighted Moore–Penrose inverse using partitioning method, *Applied Mathematics and Computation*, Vol.189, Issue:1, pp.615-640.

2008

55. Marko D. Petković, Predrag S. Stanimirović and Milan B. Tasić, 2008, Effective partitioning method for computing weighted Moore–Penrose inverse, *Computers & Mathematics with Applications*, Volume 55, Issue 8, April 2008, Pages 1720-1734.
56. P. Lancaster, 2008, Linearization of regular matrix polynomials, *Electronic Journal of Linear Algebra*, Vol.17, pp.21-27.
57. P. S. Stanimirovic and M. B. Tasic, 2008, Computing generalized inverses using LU factorization of matrix product. *International Journal of Computer Mathematics*, Vol.85, Issue:12, pp.1865-1878.
58. Milan B. Tasic, Predrag S. Stanimirovic, 2008, Symbolic and recursive computation of different types of generalized inverses, *Applied Mathematics and Computation*, 199, Issue:1, 349–367.
59. Marko D. Petkovic, 2008, SIMBOLICKO IZRACUNAVANJE HANKELOVIH DETERMINANTI I GENERALISANIH INVERZA MATRICA (Symbolic computation of Hankel determinants and matrix generalized inverses), Doktorska disertacija (doctoral dissertation), Nis, Jun 2008.
60. Marko D. Petkovic, Predrag S. Stanimirovic, Computing generalized inverses of constant and rational matrices, *Applied Linear Algebra*, in honor of Ivo Marek, Novi Sad, 2008.
61. Luis Vazquez Seisdedos, Miguel Borges Trenard, Yolanda Llosas Albuérne, Israel Mazaira Morales, Basilio Bychkov Houdayer, SIMULACION Y MODELOS MATEMATICOS PARA GENERADOR DE VAPOR CON DOMO, *Tecnologva Quvmica*, Vol.28, No.3.

2009

62. Zhang, K, Jiang, Bin, Shi, Peng, 2009, A New Approach to Observer-Based Fault-Tolerant Controller Design for Takagi-Sugeno Fuzzy Systems with State Delay, *CIRCUITS SYSTEMS AND SIGNAL PROCESSING*, Volume: 28 Issue: 5 Pages: 679 .
63. Lomadze V., 2009, (Generalised) autoregressive models and their trajectories, *INTERNATIONAL JOURNAL OF CONTROL* Volume: 82 Issue: 10 Pages: 1929-1936.
64. Kalogeropoulos GI, Karageorgos AD, Pantelous AA, 2009, Discretising effectively a linear singular differential system by choosing an appropriate sampling period, *IET CONTROL THEORY AND APPLICATIONS*, Volume: 3, Issue: 7, Pages: 823-833.

65. Stanimirovic PS, Tasic MB, Vu KM, 2009, Extensions of Faddeev's algorithms to polynomial matrices, *APPLIED MATHEMATICS AND COMPUTATION*, Volume: 214, Issue: 1, Pages: 246-258.
66. Nitin Vats, 2009, NNRU, a noncommutative analogue of NTRU. <http://arxiv.org/abs/0902.1891>, CGC (Combinatorial Group Theory and Cryptography) Bulletin 24.
67. Yu, Yaoming,, Wang, Guorong, 2009, DFT calculation for the{2}-inverse of a polynomial matrix with prescribed image and kernel, *APPLIED MATHEMATICS AND COMPUTATION*, Vol.215, Issue: 7, pp. 2741-2749.
68. Hunek, Wojciech P., A new general class of MVC-related inverses of nonsquare polynomial matrices based on the smith factorization, 14th International Conference on Methods and Models in Automation and Robotics(2009), *Methods and Models in Automation and Robotics*, Volume # 14 | Part# 1, DOI 10.3182/20090819-3-PL-3002.00065
69. Vazquez Seisdedos, Luis; Llosas Albuérne, Yolanda; Mazaira Morales, Israel; Bychkov, Houdayer, Basilio, LABORATORIO SIMULADO DE GENERADOR DE VAPOR CON DOMO, *Ciencia en su PC*, ISSN (Version impresa): 1027-2887, cpc@megacen.ciges.inf.cu, Instituto de Información Científica y Tecnológica, Cuba.
70. Trenn, Stephan, 2010, Regularity of distributional differential algebraic equations, *MATHEMATICS OF CONTROL SIGNALS AND SYSTEMS*, Vol. 21, Issue: 3, pp. 229-264.

2010

71. N. Matzakos · D. Pappas, 2010, EP matrices: computation of the Moore-Penrose inverse via factorizations, *of Applied Mathematics and Computing* Vol 34: 113–127.
72. Tasic MB, Stanimirovic PS, 2010, Differentiation of generalized inverses for rational and polynomial matrices, *Applied Mathematics and Computation*, Volume: 216 Issue: 7 Pages: 2092-2106 Published: JUN 1 2010
73. Vakhtang Lomadze, Hasan Mahmood, 2010, Smooth/impulsive linear systems: Axiomatic description, *Linear Algebra and its Applications* 433 (2010) 1997–2009.
74. Kinji Kumura, Hirokazu Anai, Parallel computation of determinants of matrices with polynomial entries for robust control design *Proceedings of the 4th International Workshop on Parallel and Symbolic Computation (PASCO '10)*, July 2010.
75. Athanasios D. Karageorgos, Athanasios A. Pantelous, and Grigoris I. Kalogeropoulos, 2010, Discretizing LTI Descriptor (Regular) Differential Input Systems with Consistent Initial Conditions, *Advances in Decision Sciences*, Volume 2010 (2010), Article ID 810605, doi:10.1155/2010/810605

2011

76. Edem Dovlo, Natalie Baddour, 2011, Development of a Symbolic Computer Algebra Toolbox for 2D Fourier Transforms in Polar Coordinates, 23rd Canadian Congress of Applied Mechanics, 2011
77. Fuhrmann, P.A., Helmke, U.b 2011, Equivalence conditions for behaviors and the Kronecker canonical form, *Mathematics of Control Signal and Systems*, Volume 22, Issue 4, August 2011, Pages 267-293
78. Vologiannidis, S., Antoniou, E.N., 2011, A permuted factors approach for the linearization of polynomial matrices, *Mathematics of Control Signal and Systems* , Volume 22, Issue 4, August 2011, Pages 317-342
79. Athanasios D. Karageorgos, Athanasios A. Pantelous and Grigoris I.

- Kalogeropoulos, Designing the sampling period of a discretized LTI descriptor (regular) system with inputs, INTERNATIONAL JOURNAL OF CONTROL, AUTOMATION AND SYSTEMS, Volume 9, Number 4 (2011), 791-796, DOI: 10.1007/s12555-011-0422-x.
80. Wojciech P. Hunek, Krzysztof J. Latawiec, A study on new right/left inverses of nonsquare polynomial matrices, International Journal of Applied Mathematics and Computer Science, Volume 21, Number 2 / June 2011, pp.331-348, DOI :10.2478/v10006-011-0025-y
 81. Predrag S. Stanimirović and Milan B. Tasić, On the Leverrier-Faddeev algorithm for computing the Moore-Penrose inverse, JOURNAL OF APPLIED MATHEMATICS AND COMPUTING, Volume 35, Numbers 1-2 (2011), 135-141, DOI: 10.1007/s12190-009-0347-1.
 82. Vologiannidis, S. , Antoniou, E. ; Kasidiaris, M. , 2011, Zero coprime equivalent matrix pencils of a 2 - D polynomial matrix, 2011 7th International Workshop on Multidimensional (nD) Systems (nDs), 5-7 Sept. 2011, Poitiers, France
 83. Biljana Radicic, Branko Malesevic, Some considerations in relation to the matrix equation $AXB=C$, <http://arxiv.org/abs/1108.2485>.

2012

84. Biljana Radicic, Branko Malesevic, 2012, Some considerations in relation to the matrix equation $AXB=C$, <http://arxiv.org/abs/1108.2485>.
85. Predrag S. Stanimirović , Dimitrios Pappas, Vasilios N. Katsikis, Ivan P. Stanimirović , Symbolic computation of $A_{T,S}^{(2)}$ -inverses using QDR factorization, Linear Algebra and its Applications, Volume 437, Issue 6, 15 September 2012, Pages 1317–1331.
86. S.H. SIMONYAN, A.G. AVETISYAN, A.S. SIMONYAN, V.R. AVINYAN, A UNIVERSAL METHOD FOR DETERMINING MOORE-PENROSE'S PARAMETRIC GENERALIZED INVERSE MATRICES, Proceedings of State Engineering University of Armenia , http://banber.seua.am/Header_PDF/1829-33361_Simonyan_Avetisyan_Avinyan_Simonyan_9-19.pdf.
87. Krishnachandran, V.N., Joy, R.C., Siji, K.B. ,2012, More CAS's in maths classrooms: An urgent imperative, 2012 IEEE International Conference on Technology Enhanced Education (ICTEE), 3-5 Jan. 2012, Kerala.
88. Stanimirović, I.P., Tasić, M.B., 2012, Computation of generalized inverses by using the LDL* decomposition, Applied Mathematics Letters,, Volume 25, Issue 3, March 2012, Pages 526-531
89. Korotka, T., Loiseau, J.J., Zagalak, P., Kucera, V., 2012, Sufficiency conditions for pole assignment in column-regularizable implicit linear systems, 17th International Conference on Methods and Models in Automation and Robotics, MMAR 2012, Article number 6347844, Pages 457-457e.
90. Xia, Likun and Hussin, Fawnizu Azmadi and Malik, Aamir Saeed (2012) *A Novel Algorithm for Automated Model Generation of Analog Circuits Using Chebyshev-Newton Interpolation*. In: International Conference on Advanced Electrical Engineering (ICAEE), Aug. 29-30, 2012, Hong Kong, China.
91. Predrag S. Stanimirović, Dimitrios Pappas, Vasilios N. Katsikis, Ivan P. Stanimirović, 2012, Symbolic computation of $A_{T,S}^2$ -inverses using QDR factorization, Linear Algebra and its Applications, Volume 437, Issue 6, 15 September 2012, Pages 1317–1331.

92. Francisco-Ronay Lopez-Estrada, Didier Theilliol, Carlos Manuel Astorga Zaragoza, Jean-Christophe Ponsart, 2012, Developments of a Scilab/Matlab toolbox dedicated to LTI/LPV descriptor systems for fault diagnosis, 10th European Workshop on Advanced Control and Diagnosis, ACD 2012.
93. A. K. Singh, K. M. Krishna, and S. Saripalli, "Planning trajectories on uneven terrain using optimization and non-linear time scaling techniques," in 2012 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2012, pp. 3538 –3545.
94. Saračević Muzafer H., Masović Sead H., Kamberović Hamza, 2012, Application of JAVA and UML tools to better quality of some matrices computations, Communications in Dependability and Quality Management, vol. 15, br. 3, str. 21-31.

2013

95. Elizabeth. S and Jothilakshmi. R., 2013, Observability and Controllability of MIMO Control Systems via Difference Equations. International Journal of Computer Applications 62(1):37-42, January 2013. Published by Foundation of Computer Science, New York, USA
96. Ivan P. Stanimirović, Milan B. Tasić, 2012, Computation of generalized inverses by using the *LDL*-decomposition, Applied Mathematics Letters, Volume 25, Issue 3, March 2012, Pages 526–531.
97. Ivan P. Stanimirovic, 2013, Algorithms for symbolic matrix computations and optimization, Doctoral dissertation, Univerzitet U Ni•u, <http://www.pmf.ni.ac.rs/pmf/doktorati/doc/2013-03-26-si.pdf>.
98. Liji Huang, 2012, Quaternion Equations and Quaternion Polynomial Matrices, Department of Mathematics, University of Manitoba, Winnipeg.
99. Farooq, M. U.; Xia, L.; Hussin, F. A.; Malik, A. S., 2013, A Novel Algorithm for Automated Model Generation of Analog Circuits Using Chebyshev-Newton Interpolation, Advanced Science Letters, Volume 19, Number 5, May 2013 , pp. 1520-1524(5).
100. Herwig Peters, Nicole Kessissoglou, and Steffen Marburg, 2013, Modal decomposition of exterior acoustic-structure interaction, J. Acoust. Soc. Am. Volume 133, Issue 5, pp. 2668-2677.
101. Ali Al-Matouq, Tyrone Vincent and Luis Tenorio, 2013, Reduced Complexity Dynamic Programming Solution for Kalman filtering of Linear Discrete Time Descriptor Systems, 2013 American Control Conference (ACC), Washington, DC, USA, June 17-19, 2013.
102. Tzekis, P.A., Antoniou, E., Vologiannidis, S., 2013, Computation of the general solution of a multivariate polynomial matrix Diophantine equation, 21st Mediterranean Conference on Control and Automation, MED 2013; Platania-Chania, Crete; Greece; 25 June 2013 through 28 June 2013; Category number CFP13MED-ART; Code 99950, Article number 6608796, Pages 677-682.
103. Hunek, W., Latawiec, K. ; Stanislawski, R. ; Lukaniszyn, M. ; Dzierwa, P.A new form of a σ -inverse for nonsquare polynomial matrices, 18th International Conference on Methods and Models in Automation and Robotics (MMAR), 2013.
104. Tasić, M.B., Stanimirović, I.P., 2013, Symbolic computation of the Moore-Penrose inverse using the *LDL** decomposition of the polynomial matrix, Filomat , 27 (8) pp. 1393 - 1403 .

105. Fernando De Teran, Froilan M. Dopico and D. Steven Mackey (2013) Spectral equivalence of matrix polynomials and the index sum theorem, The University of Manchester (Eprint 2013:47, <http://eprints.ma.man.ac.uk/2017/>).
106. M.S. Akrama, V. Lomadzeb, H. Mahmoodc & M.K. Zafard, 2013, (Singular) state models and (singular) LTID systems, International Journal of Control, DOI:10.1080/00207179.2013.849819.
107. Xia, Likun and Farooq, Muhammad Umer and Bell, Ian (2013) *High Level Fault Modeling of Analog Circuits Through Automated Model Generation Using Chebyshev And Newton Interpolating Polynomials*.
108. Tzekis, P.A., Antoniou, E., Vologianidis, S., 2013, Computation of the general solution of a multivariate polynomial matrix Diophantine equation, 2013, 21st Mediterranean Conference on Control & Automation (MED), 25-28 June 2013, Chania, Greece, pp.677 – 682, DOI : 10.1109/MED.2013.6608796.
109. S.H. Simonyan, 2013, Parallel computing methods to determine parametric generalized inverse matrices. Известия Томского политехнического университета. 2013. Т. 323. № 5, pp.10-15.

2014.

110. Predrag Stanimirović, Aleksandar S. Randjelovic, 2014, Application of block Cayley-Hamilton theorem to generalized inversion, Facta Universitatis, Series: Mathematics and Informatics, Vol.29, No.3, 209–232.
111. M.S. Akrama, V. Lomadzeb, H. Mahmoodc & M.K. Zafar, 2014, (Singular) state models and (singular) LTID systems, International Journal of Control, Volume 87, Issue 3, 2014
112. Papakonstantinou Apostolos*1, Christos Christodoulou2, Varsamis Dimitris, 2014, On the Automation of the Cartographic Insetting Procedure with Parallel Numerical Searching Algorithm, Journal of Surveying and Mapping Engineering, Sept. 2014, Vol. 2 Iss. 3, PP. 56-64.
113. Poornaselvan K J, 2014, Modeling and control of Superheated steam Temperature control process, Ph.D. Thesis, FACULTY OF ELECTRICAL ENGINEERING, ANNA UNIVERSITY, CHENNAI 600 025, India.
114. Cheng Zeng, Shan Liang, Yuzhe Zhang, Jiaqi Zhong, Yingying Su, 2014, Improving the stability of discretization zeros with the Taylor method using a generalization of the fractional-order hold, International Journal of Applied Mathematics and Computer Science. Volume 24, Issue 4, Pages 745–757.
115. Yang Zhang, Computing Moore-Penrose Inverses of Ore Polynomial Matrices, Mathematical Software – ICMS 2014, Lecture Notes in Computer Science Volume 8592, 2014, pp 484-491.
116. Fernando De Terán, Froilán M. Dopico, D. Steven Mackey, 2014, Spectral equivalence of matrix polynomials and the Index Sum Theorem, Linear Algebra and its Applications, Volume 459, 15 October 2014, Pages 264–333.
117. Malika Yaici and Kamel Hariche, On Solvents of Matrix Polynomials, International Journal of Modeling and Optimization, Vol. 4, No. 4, August 2014.
118. Jared L. Aurentz, Thomas Mach, Raf Vandebriel, and David S. Watkins, 2014, A note on companion pencils, Contemporary Mathematics.
119. Amparan, A; Marcaida, S; and Zaballa, I. (2015), "Finite and infinite structures of rational matrices: a local approach", Electronic Journal of Linear Algebra, Vol. 30, pp. 196-226.
120. Klaokanlaya Silachan and Panjai Tantatsanawong, Imputation of Medical Data Using Subspace Condition Order Degree Polynomials, J Inf Process Syst, Vol.10, No.3, pp.395~411, September 2014

2015.

121. Ivan P. Stanimirović, 2015, Computing $A^T, S(2)$ inverses of Hermitian matrices via LDL^* decomposition for a square matrix A , *Linear and Multilinear Algebra*, Volume 63, Issue 8, pages 1553-1567.
122. Bo Yu, Jintao Zhang and Yanyan Xu, 2015, The RCH method for computing minimal polynomials of polynomial matrices, *Journal of Systems Science and Complexity*, February 2015, Volume 28, Issue 1, pp 190-209.
123. Sujata Khobragade, Mr. Avinash Dhole, Encroachment of power optimization in Parallel Systems using OpenMP, *Discovery*, 2015, 27(100), 99-102.
124. Likun Xia, Muhammad Umer Farooq and Ian M. Bell, 2015, High level fault modeling of analog circuits through automated model generation using Chebyshev and Newton interpolating polynomials, *Analog Integrated Circuits and Signal Processing*, January 2015, Volume 82, Issue 1, pp 265-283.
125. Liji Huang, Qing-Wen Wang, Yang Zhang, 2015, The Moore–Penrose inverses of matrices over quaternion polynomial rings, *Linear Algebra and its Applications* 475 (2015) 45–61
126. Amparan, A; Marcaida, S; and Zaballa, I. (2015), "Finite and infinite structures of rational matrices: a local approach", *Electronic Journal of Linear Algebra*, Vol. 30, pp. 196-226.

PUBLICATIONS

Ph. D. Thesis

N. P. Karampetakis, *Notions of Equivalence for Linear Time Invariant Multivariable Systems.*, Ph. D. Thesis (No. 15), Department of Mathematics, Aristotle University of Thessaloniki, Thessaloniki, Greece.

Papers published in International Journals

- 1) **Karampetakis N.P. and Vardulakis A.I.G., 1992, Matrix fractions and full system equivalence., *IMA Journal of Mathematical Control and its Information*, 9, 147-160.**

Citations

1. Galkowski Krzysztof, 1997, State-space realizations of multi-input multi-output systems-elementary operations approach., *Int. J. Control*, 66, No.1, 119-144.

- 2) **Karampetakis N.P., Pugh A.C. and Vardulakis A.I.G., 1994, Equivalence transformations of rational matrices and applications., *International Journal of Control*, 59, NO.4, 1001-1020.**

Citations

1. Rafael Bru, Carmen Coll, Josep Gelonch, 1996, Periodic coprime matrix fraction decompositions, *The Electronic Journal of Linear Algebra*, Volume 1, pp.44-58
2. Simon J. McInerney, 1999, Representations and transformations for multi-dimensional systems, Ph.D. Thesis, Department of Mathematical Sciences, Loughborough University of Technology.
3. Amparan, A; Marcaida, S; and Zaballa, I. (2015), "Finite and infinite structures of rational matrices: a local approach", *Electronic Journal of Linear Algebra*, Vol. 30, pp. 196-226.

- 3) **Pugh A.C., Karampetakis N.P., Vardulakis A.I.G. and Hayton G.E., 1994, A fundamental notion of equivalence for Linear Multivariable Systems., *IEEE Trans. on Auto. Control*, AC-39, NO.5, May 1994.**

Citations

1. Mahmood S., 1996, *Some Structural Problems Arising in the Generalized Theory of Linear Multivariable Control Systems*, Ph. D. Thesis, Loughborough University of Technology, U.K.

2. Vafiadis D., 1995, *Algebraic and Geometric Methods and Problems for Implicit Linear Systems*, Ph. D. Thesis, City University, U.K.
 3. E. Antoniou and A.I. Vardulakis, 2003, Fundamental equivalence of discrete-time AR representations , *Int. J. Control*, Vol.76, No.11, 1078-1088.
 4. Vakhtang Lomadze, 2002, Rosenbrock models and their homotopy equivalence, *Linear Algebra and its Applications* 351-352: 519-532.
 5. Galkowski Krzysztof, 1997, State-space realizations of multi-input multi-output systems-elementary operations approach., *Int. J. Control*, **66**, No.1, 119-144.
 6. Krzysztof Galkowski, 2000, State-space realizations of MIMO 2D discrete linear systems – Elementary operation and variable inversion approach, *Int. J. Control*, Vol.73, No.3, 242-253.
 7. Hou, Pugh A.C. and Hayon G.E., Generalized transfer functions and input-output equivalence, *Int. J. Control*, Vol.68, No.5, 1163-1178.
 8. Krzysztof Galkowski, 2001, Minimal state space realizations for a class of linear, discrete, nD, SISO systems, *Int. J. Control*, Vol.74, No.13, pp.1279-1294.
 9. Galkowski K., 2001, *State-space Realizations of Linear 2-D Systems with Extensions to the General nD (n>2) Case*, Springer Verlag, LNCIS 2001.
 10. Johnson D.S., 1993, *Coprimeless in Multidimensional System Theory and Symbolic Computation.*, Ph. D. Thesis, Loughborough University of Technology, U.K.
 11. Pugh A.C., Hou M. and Hayton G.E., Input-output structure and transfer equivalent polynomial representation of behavioural systems, *Proc. of the 36th IEEE CDC*, San Diego, CA, pp.3178-3183.
 12. Simon J. McInerney, 1999, *Representations and transformations for multi-dimensional systems*, Ph.D. Thesis, Department of Mathematical Sciences, Loughborough University of Technology.
 13. Bourles H., 2006, Structural properties of linear systems - Part II: Structure at infinity, Volume: 328, Pages: 259-284.
 14. Fuhrmann, P.A., Helmke, U.b 2011, Equivalence conditions for behaviors and the Kronecker canonical form, *Mathematics of Control Signal and Systems*, Volume 22, Issue 4, August 2011, Pages 267-293
- 4) **Karampetakis N.P., Mertzios B.G. and Vardulakis A.I.G., 1994, Computation of the transfer function matrix and its Laurent expansion of generalized two-dimensional systems., *International Journal of Control*, Vol.60, NO.4, pp.521-541.**

Citations

1. Π. Τζέκης, 2001, Ανάπτυξη αλγορίθμων Η/Υ για την ανάλυση και σύνθεση γραμμικών πολυμεταβλητών συστημάτων

αυτομάτου ελέγχου, Διδακτορική Διατριβή, Τμήμα Μαθηματικών του Α.Π.Θ.

2. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.
 3. Galkowski Krzysztof, 1997, State-space realizations of multi-input multi-output systems-elementary operations approach., *Int. J. Control*, **66**, No.1, 119-144.
 4. Krzysztof Galkowski, 2000, State-space realizations of MIMO 2D discrete linear systems – Elementary operation and variable inversion approach, *Int. J. Control*, Vol.73, No.3, 242-253.
- 5) **Karampetakis N.P. and Vardulakis A.I.G., 1993, Generalized state-space system matrix equivalents of a Rosenbrock system matrix., *IMA Journal of Mathematical Control and its Information*, NO.10, pp.323-344.**

Citations

1. Vakhtang Lomadze, 2002, Rosenbrock models and their homotopy equivalence, *Linear Algebra and its Applications* 351-352: 519-532.
- 6) **Pugh A.C., Karampetakis N.P., Hayton G.E. and Vardulakis A.I.G., 1993, On a certain McMillan degree condition appearing in Control., *IMA Journal of Mathematical Control and its Information*, NO.10, pp.361-373.**

Citations

1. Mahmood S., 1996, *Some Structural Problems Arising in the Generalized Theory of Linear Multivariable Control Systems*, Ph. D. Thesis, Loughborough University of Technology, U.K.
- 7) **Karampetakis N.P., Pugh A.C., Vardulakis A.I.G. and Hayton G.E., 1994, Structural properties of square inverse linear systems., *Kybernetika*, Vol.30, NO.6, pp.597-606.**
- 8) **Karampetakis N.P., Pugh A.C., Vardulakis A.I.G. and Hayton G.E., 1994, An extension of Wolovich's definition of equivalence of Linear Systems., *IEEE Trans. on Auto. Control*, Vol.41, No.2, pp.228-232.**

Citations

1. Vakhtang Lomadze, 2002, Rosenbrock models and their homotopy equivalence, *Linear Algebra and its Applications* 351-352: 519-532.
- 9) **Karampetakis N. P., Vardulakis A. I. G. and A.C. Pugh, 1995, A classification of generalised state space reduction methods for linear multivariable systems. *Kybernetika*, Vol.31, NO.6, pp.547-557.**

Citations

1. A.C. Pugh, S.J. Mcinerney, M.S. Boudellioua and G.E. Hayton, 1998, Matrix pencil equivalents of a general 2-D polynomial matrix., *International Journal of Control*, **71**, No.6, pp.1027-1050.
2. M.S. Boudellioua and B. Chentouf, 2003, A pencil equivalent of a general 2-D polynomial matrix, Proceedings of the 11th Mediterranean Conference on Control and Automation, June 18-20, Rhodes, Greece.
3. Simon J. McInerney, 1999, Representations and transformations for multi-dimensional systems, Ph.D. Thesis, Department of Mathematical Sciences, Loughborough University of Technology.
4. M. S. Boudellioua, 2006, An equivalent matrix pencil for two variable polynomial matrices, *International Journal of Applied Mathematics and Computer Science.*, Vol.16, No.2, pp.175-181.
5. Iman Mohamed Omar El Nabrawy, 2006, Algebraic issues in Linear Multi-Dimensional System Theory, Ph.D. Thesis, Department of Mathematics, Loughborough University of Technology.

- 10) Karampetakis N.P., 1997, Computation of the generalised inverse of a polynomial matrix and applications., *Linear Algebra and its Applications*, 252, pp.35-60.**

Citations

1. Π. Τζέκης, 2001, Ανάπτυξη αλγορίθμων Η/Υ για την ανάλυση και σύνθεση γραμμικών πολυμεταβλητών συστημάτων αυτομάτου ελέγχου, Διδακτορική Διατριβή, Τμήμα Μαθηματικών του Α.Π.Θ.
2. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.
3. Mahmood S., 1996, *Some Structural Problems Arising in the Generalized Theory of Linear Multivariable Control Systems*, Ph. D. Thesis, Loughborough University of Technology, U.K.
4. M Hou, A C Pugh and G E Hayton, 1998, An explicit solution to generalised systems, UKACC International Conference on CONTROL '98, 1-4 September 1998, pp.1552-1557.
5. Adi Ben-Israel and T. N.E. Greville, 2003, *Generalized Inverses : Theory and Applications*, 2nd Edition.
6. Predrag Stanimirovic and Milan B. Tasic, 2003, Partitioning method for rational and polynomial matrices, to appear in *Applied Mathematics and Computation*.
7. Abdel-Ghaffar K. A. S., 1998, Long division for Laurent series matrices and the optimal assignment problem, *Linear Algebra and its Applications*, 280, 189-197.
8. P. Stanimirovic, 2003, A finite algorithm for generalized inverses of polynomial and rational matrices, *Applied Mathematics and Computation*, Volume 144, Issues 2-3, 10 December 2003, Pages 199-214.
9. Jun Ji, 2002, A finite algorithm for the Drazin inverse of a polynomial matrix, *Applied Mathematics and Computation* 130(2-3): 243-251.

10. Hou, Pugh A.C. and Hayton G.E., International Journal of Control, 73, (9), 733-743, 2000.
11. Tolga Guyer, Onur Kiyamaz, Goksal Bilgici and Seref Mirasyedioglu, 2001, A new method for computing the solutions of differential equation systems using generalized inverse via MAPLE, Applied Mathematics and Computation, 121, 291-299.
12. Ne'stor Javier Thome, 2001, Inversas Generalizadas y su Aplicacio'n a Sistemas Singulares de Control, Tesis Doctoral, Departamento de Matema'tica Aplicada, Universidad Polite'cnica de Valencia.
13. H. M. Möller, Exact computation of the generalized inverse and least squares solution. Ergebnisberichte Angewandte Mathematik Nr. 168 Universität Dortmund, 1999.
14. M. D. Petkovic and P. S. Stanimirovic, Symbolic computation of the Moore–Penrose inverse using a partitioning method, International Journal of Computer Mathematics, Vol. 82, No. 3, March 2005, 355–367.
15. Predrag S. Stanimirovic, Marko D. Petkovic, 2005, Computing generalized inverse of polynomial matrices by interpolation, Applied Mathematics and Computation xxx (2005) xxx–xxx.
16. P. S. Stanimirovic and M. B. Tasic, 2001, Drazin inverse of one variable polynomial matrices, FILOMAT, pp.71-78 ([http://www.pmf.ni.ac.yu/org/filomat/f15/F15\(1\)10.pdf](http://www.pmf.ni.ac.yu/org/filomat/f15/F15(1)10.pdf)).
17. Marko D. Petkovi'c, Predrag S. Stanimirovi'c, 2007, Interpolation algorithm for computing Drazin inverse of polynomial matrices, *Linear Algebra and its Applications*, to appear.
18. Milan B. Tasic', Predrag S. Stanimirovic', Marko D. Petkovic, 2007, Symbolic computation of weighted Moore–Penrose inverse using partitioning method, *Applied Mathematics and Computation*, to appear.
19. K.P.S. Bhaskara Rao, 2003, The theory of generalized inverses over commutative rings, Algebra, Logic and Applications Series, Vol.17, Taylor & Francis ISBN 0415272483.
20. Marko D. Petkovic, Predrag S. Stanimirovic, 2006, Interpolation algorithm of Leverrier-Faddev type for polynomial matrices. Numer. Algorithms, 42, no.3-4, pp.345-361..
21. Marko D. Petković, Predrag S. Stanimirović and Milan B. Tasić, 2007, Effective partitioning method for computing weighted Moore–Penrose inverse, Computers & Mathematics with Applications, to appear.
22. P. S. Stanimirovic and M. B. Tasic, 2008, Computing generalized inverses using LU factorization of matrix product. International Journal of Computer Mathematics, to appear.
23. Milan B. Tasic, Predrag S. Stanimirovic, 2008, Symbolic and recursive computation of different types of generalized inverses, *Applied Mathematics and Computation*, 199, 349–367.
24. Zhang, K, 2009, A New Approach to Observer-Based Fault-Tolerant Controller Design for Takagi-Sugeno Fuzzy Systems with State Delay, CIRCUITS SYSTEMS AND SIGNAL PROCESSING, Volume: 28 Issue: 5 Pages: 679 .

25. Stanimirovic PS, Tasic MB, Vu KM, 2009, Extensions of Faddeev's algorithms to polynomial matrices, APPLIED MATHEMATICS AND COMPUTATION, Volume: 214, Issue: 1, Pages: 246-258.
26. Marko D. Petkovic, 2008, SIMBOLICKO IZRACUNAVANJE HANKELOVIH DETERMINANTI I GENERALISANIH INVERZA MATRICA, Doktorska disertacija, Ni-s, Jun 2008.
27. Predrag S. Stanimirović, Dimitrios Pappas, Vasilios N. Katsikis, Ivan P. Stanimirović, 2012, Symbolic computation of $A_{T,S}^2$ -inverses using QDR factorization, Linear Algebra and its Applications, Volume 437, Issue 6, 15 September 2012, Pages 1317–1331.
28. S.H. SIMONYAN, A.G. AVETISYAN, A.S. SIMONYAN, V.R. AVINYAN, A UNIVERSAL METHOD FOR DETERMINING MOORE-PENROSE'S PARAMETRIC GENERALIZED INVERSE MATRICES, Proceedings of State Engineering University of Armenia , http://banber.seua.am/Header_PDF/1829-33361_Simonyan_Avetisyan_Avinyan_Simonyan_9-19.pdf.
29. Ivan P. Stanimirovic, 2013, Algorithms for symbolic matrix computations and optimization, Doctoral dissertation, Univerzitet U Nišu.
30. Liji Huang, 2012, Quaternion Equations and Quaternion Polynomial Matrices, Department of Mathematics, University of Manitoba, Winnipeg.
31. S.H. Simonyan, 2013, Parallel computing methods to determine parametric generalized inverse matrices. Известия Томского политехнического университета. 2013. Т. 323. № 5, pp.10-15.

11) **Karampetakis N.P., 1996, Comments on “Computation of the inverse of a polynomial matrix and evaluation of its Laurent expansion *Int. J. Control*, Vol. 64, NO. 3, pp.563-565.**

12) **Jones J., Karampetakis N. P. and Pugh A.C., 1998, The computation and application of the generalised inverse via MAPLE., *Journal of Symbolic Computation*, Vol. 25, No.1, pp.99-124.**

Citations

1. Π. Τζέκης, 2001, Ανάπτυξη αλγορίθμων H/Y για την ανάλυση και σύνθεση γραμμικών πολυμεταβλητών συστημάτων αυτομάτου ελέγχου, Διδακτορική Διατριβή, Τμήμα Μαθηματικών του Α.Π.Θ.
2. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.
3. P. Stanimirovic, 2003, A finite algorithm for generalized inverses of polynomial and rational matrices, Applied Mathematics and Computation, Volume 144, Issues 2-3, 10 December 2003, Pages 199-214.
4. Adi Ben-Israel and T. N.E. Greville, 2003, Generalized Inverses : Theory and Applications, 2nd Edition.
5. Jun Ji, 2002, A finite algorithm for the Drazin inverse of a polynomial matrix, Applied Mathematics and Computation 130(2-3): 243-251.

6. Tolga Guyer, Onur Kiyamaz, Goksal Bilgici and Seref Mirasyedioglu, 2001, A new method for computing the solutions of differential equation systems using generalized inverse via MAPLE, *Applied Mathematics and Computation*, 121, 291-299.
7. Predrag Stanimirovic and Milan B. Tasic, 2003, Partitioning method for rational and polynomial matrices, to appear in *Applied Mathematics and Computation*.
8. Predrag S. Stanimirovic, Marko D. Petkovic, 2005, Computing generalized inverse of polynomial matrices by interpolation, *Applied Mathematics and Computation* xxx (2005) xxx–xxx.
9. P. S. Stanimirovic and M. B. Tasic, 2001, Drazin inverse of one variable polynomial matrices, *FILOMAT*, pp.71-78 ([http://www.pmf.ni.ac.yu/org/filomat/f15/F15\(1\)10.pdf](http://www.pmf.ni.ac.yu/org/filomat/f15/F15(1)10.pdf)).
10. Marko D. Petković, Predrag S. Stanimirović, 2007, Interpolation algorithm for computing Drazin inverse of polynomial matrices, *Linear Algebra and its Applications*, to appear.
11. Milan B. Tasić, Predrag S. Stanimirović, Marko D. Petkovic, 2007, Symbolic computation of weighted Moore–Penrose inverse using partitioning method, *Applied Mathematics and Computation*, to appear.
12. Marko D. Petkovic, Predrag S. Stanimirovic, 2006, Interpolation algorithm of Leverrier-Faddev type for polynomial matrices. *Numer. Algorithms*, 42, no.3-4, pp.345-361..
13. Marko D. Petković, Predrag S. Stanimirović and Milan B. Tasić, 2007, Effective partitioning method for computing weighted Moore–Penrose inverse, *Computers & Mathematics with Applications*, to appear.
14. P. S. Stanimirovic and M. B. Tasic, 2008, Computing generalized inverses using LU factorization of matrix product. *International Journal of Computer Mathematics*, to appear.
15. Milan B. Tasic, Predrag S. Stanimirovic, 2008, Symbolic and recursive computation of different types of generalized inverses, *Applied Mathematics and Computation*, 199, 349–367.
16. Stanimirovic PS, Tasic MB, Vu KM, 2009, Extensions of Faddeev's algorithms to polynomial matrices, *APPLIED MATHEMATICS AND COMPUTATION*, Volume: 214, Issue: 1, Pages: 246-258.
17. Marko D. Petkovic, 2008, SIMBOLICKO IZRACUNAVANJE HANKELOVIH DETERMINANTI I GENERALISANIH INVERZA MATRICA, Doktorska disertacija, Ni-s, Jun 2008.
18. Stanimirović, I.P., Tasić, M.B., 2012, Computation of generalized inverses by using the LDL* decomposition, *Applied Mathematics Letters*, Volume 25, Issue 3, March 2012, Pages 526-531.
19. Predrag S. Stanimirović, Dimitrios Pappas, Vasilios N. Katsikis, Ivan P. Stanimirović, 2012, Symbolic computation of $A_{r,s}^2$ -inverses using QDR factorization, *Linear Algebra and its Applications*, Volume 437, Issue 6, 15 September 2012, Pages 1317–1331.
20. Ivan P. Stanimirović, Milan B. Tasić, 2012, Computation of generalized inverses by using the LDL-decomposition, *Applied Mathematics Letters*, Volume 25, Issue 3, March 2012, Pages 526–531.

21. Ivan P. Stanimirovic, 2013, Algorithms for symbolic matrix computations and optimization, Doctoral dissertation, Univerzitet U Nišu.
22. Yang Zhang, Computing Moore-Penrose Inverses of Ore Polynomial Matrices, Mathematical Software – ICMS 2014, Lecture Notes in Computer Science Volume 8592, 2014, pp 484-491
23. LijiHuang, Qing-WenWang, YangZhang, 2015, The Moore–Penrose inverses of matrices over quaternion polynomial rings, *Linear Algebra and its Applications* 475 (2015) 45–61

- 13) **Karampetakis N.P., 1997, Generalised inverses of two variable polynomial matrices and applications. *Circuit Systems & Signal Processing*, Vol.16, No.4, pp.439-453.**

Citations

1. Π. Τζέκης, 2001, Ανάπτυξη αλγορίθμων Η/Υ για την ανάλυση και σύνθεση γραμμικών πολυμεταβλητών συστημάτων αυτομάτου ελέγχου, Διδακτορική Διατριβή, Τμήμα Μαθηματικών του Α.Π.Θ.
2. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.
3. Fanbin Bu and Yimin Wei, 2004, The algorithm for computing the Drazin inverses of two-variable polynomial matrices, *Applied Mathematics and Computation*, Vol.147, Issue 3, pp.805-836.
4. P. Stanimirovic, 2003, A finite algorithm for generalized inverses of polynomial and rational matrices, *Applied Mathematics and Computation*, Volume 144, Issues 2-3, 10 December 2003, Pages 199-214.
5. Predrag Stanimirovic and Milan B. Tasic, 2003, Partitioning method for rational and polynomial matrices, to appear in *Applied Mathematics and Computation*.
6. Adi Ben-Israel and T. N.E. Greville, 2003, *Generalized Inverses : Theory and Applications*, 2nd Edition.
7. Simon J. McInerney, 1999, Representations and transformations for multi-dimensional systems, Ph.D. Thesis, Department of Mathematical Sciences, Loughborough University of Technology.
8. M. D. Petkovic and P. S. Stanimirovic, Symbolic computation of the Moore–Penrose inverse using a partitioning method, *International Journal of Computer Mathematics*, Vol. 82, No. 3, March 2005, 355–367.
9. Predrag S. Stanimirovic, Marko D. Petkovic, 2005, Computing generalized inverse of polynomial matrices by interpolation, *Applied Mathematics and Computation* xxx (2005) xxx–xxx.
10. P. S. Stanimirovic and M. B. Tasic, 2001, Drazin inverse of one variable polynomial matrices, *FILOMAT*, pp.71-78 ([http://www.pmf.ni.ac.yu/org/filomat/f15/F15\(1\)10.pdf](http://www.pmf.ni.ac.yu/org/filomat/f15/F15(1)10.pdf)).
11. Marko D. Petković, Predrag S. Stanimirović, 2007, Interpolation algorithm for computing Drazin inverse of polynomial matrices, *Linear Algebra and its Applications*, to appear.
12. Milan B. Tasic, Predrag S. Stanimirovic, Marko D. Petkovic, 2007, Symbolic computation of weighted Moore–Penrose inverse using

partitioning method, *Applied Mathematics and Computation*, to appear.

13. Marko D. Petkovic, Predrag S. Stanimirovic, 2006, Interpolation algorithm of Leverrier-Faddev type for polynomial matrices. *Numer. Algorithms*, 42, no.3-4, pp.345-361..
 14. Marko D. Petković, Predrag S. Stanimirović and Milan B. Tasić, 2007, Effective partitioning method for computing weighted Moore–Penrose inverse, *Computers & Mathematics with Applications*, to appear.
 15. P. S. Stanimirovic and M. B. Tasic, 2008, Computing generalized inverses using LU factorization of matrix product. *International Journal of Computer Mathematics*, to appear.
 16. Milan B. Tasic, Predrag S. Stanimirovic, 2008, Symbolic and recursive computation of different types of generalized inverses, *Applied Mathematics and Computation*, 199, 349–367.
 17. Stanimirovic PS, Tasic MB, Vu KM, 2009, Extensions of Faddeev's algorithms to polynomial matrices, *APPLIED MATHEMATICS AND COMPUTATION*, Volume: 214, Issue: 1, Pages: 246-258.
 18. Marko D. Petkovic, 2008, SIMBOLICKO IZRACUNAVANJE HANKELOVIH DETERMINANTI I GENERALISANIH INVERZA MATRICA, Doktorska disertacija, Ni-s, Jun 2008.
 19. Predrag S. Stanimirović, Dimitrios Pappas, Vasilios N. Katsikis, Ivan P. Stanimirović, 2012, Symbolic computation of $A_{r,s}^2$ -inverses using QDR factorization, *Linear Algebra and its Applications*, Volume 437, Issue 6, 15 September 2012, Pages 1317–1331.
 20. Ivan P. Stanimirovic, 2013, Algorithms for symbolic matrix computations and optimization, Doctoral dissertation, Univerzitet U Nišu.
-
- 14) Karampetakis N.P., Pugh A.C. and Hayton G.E., 1997, Notes on a hierarchical theory of systems., *Kybernetika*, 33, No.2, pp.185-201.
 - 15) Karampetakis N.P., 1997, Comments on “Reachability of polynomial matrix descriptions (PMDs)”. *Circuits Systems & Signal Processing*. 16, No.5, pp.559-568.
 - 16) Mahmood S., Karampetakis N. P. and Pugh A.C., 1998, Structural properties of column (row) reduced MFDs, *International Journal of Control*, 69, No.1, pp.111-130.
 - 17) Mahmood S., Karampetakis N. P. and Pugh A.C., 1998, Solvability, reachability and controllability of regular PMDs, *International Journal of Control*, 70, No.4, pp.617-630.
 - 18) Antoniou S., Vardulakis A.I. and Karampetakis N.P., 1998, A spectral characterization of the behavior of discrete time AR-Representations over a finite time interval, *Kybernetika*, Vol.34, No.5, pp.555-564.

Citations

1. E. Antoniou and A.I. Vardulakis, 2003, Fundamental equivalence of discrete-time AR representations , *Int. J. Control*, Vol.76, No.11, 1078-1088.
2. Henri Bourles, 2003, Impulsive behaviours of discrete and continuous time varying systems: A unified approach, ECC'03.
3. Henri Bourles, 2002, A new look on poles and zeros at infinity in the light of systems interconnection, IEEE CDC 2002, Las Vegas, Nevada, December 10-13, 2002, Paper WeP05-4.
4. Henri Bourles, 2004, Impulsive systems and behaviors in the theory of linear dynamical systems, *Forum Mathematicum*.
5. Amparan, A; Marcaida, S; and Zaballa, I. (2015), "Finite and infinite structures of rational matrices: a local approach", *Electronic Journal of Linear Algebra*, Vol. 30, pp. 196-226.

- 19) **Karampetakis N. P., Jones J. and Antoniou S., 2001, Forward, backward and symmetric solutions of discrete ARMA-representations, *Circuit Systems & Signal Processing*, 20, No.1, pp.89-109.**

Citations

1. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.
2. Goncharenko VA, Goncharenko VI, 2003, Influence of force structure on the stability, 2003 INTERNATIONAL CONFERENCE PHYSICS AND CONTROL, VOLS 1-4, PROCEEDINGS - VOL 1: PHYSICS AND CONTROL: GENERAL PROBLEMS AND APPLICATIONS; VOL 2: CONTROL OF OSCILLATIONS AND CHAOS; VOL 3: CONTROL OF MICROWORLD PROCESSES. NANO- AND FEMTOTECHNOLOGIES; VOL 4: NONLINEAR DYNAMICS AND CONTROL Pages: 1121-1123.

- 20) **Karampetakis N.P., Pugh A.C. and Hayton G.E., 1998, The output zeroing problem for general polynomial descriptions., *International Journal of Control*, Vol.71, No.6, pp.1069-1086.**

Citations

1. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.
2. Zaris, P., Wood, J., Pillai, H. and Rogers, E. (2001) On Invariant Zeros of Multidimensional (nD) Linear Systems. In Proceedings of Proc. of the European Control Conference ECC'01, pages pp. 1662-1667.
3. P. Zaris, J. Wood, H. Pillai, E. Rogers, 2006, On invariant zeros of linear systems of PDEs, *Linear Algebra and its Applications*, Vol.417, Issue 1, pp.275-297.

- 21) **P. Tzekis, N. P. Karampetakis and A.I. Vardulakis, 1999, On the division of polynomial matrices, *IMA Journal of Control and its Information*, Vol.16, Issue 4, pp.391-401.**

- 22) Karampetakis N. P. and Vardulakis A.I., 2000, On the reduction of a polynomial matrix model of a linear multivariable system to generalized state space form., *IMA Journal of Control and its Information*, 17, pp.1-42.
- 23) Vardulakis A.I.G., Antoniou S. and Karampetakis N. P., 1999, On the solution and impulsive behavior of polynomial matrix descriptions of free linear multivariable systems, *Int. J. Control*, 72, NO.3, pp.215-228.

Citations

1. Bernhard P. Lampe und Efim N. Rosenwasser, 2003, Strukturierte Polvorgabe für PMD Prozesse, Theoretische Arbeit, Automatisierungstechnik, 51 (2003) 3 Oldenbourg Verlag pp.119-126.
2. Lomadze V., 2009, Generalised) autoregressive models and their trajectories, *INTERNATIONAL JOURNAL OF CONTROL* Volume: 82 Issue: 10 Pages: 1929-1936.
3. Trenn, Stephan, 2010, Regularity of distributional differential algebraic equations, *MATHEMATICS OF CONTROL SIGNALS AND SYSTEMS*, Vol. 21, Issue: 3, pp. 229-264.
4. Vakhtang Lomadze, Hasan Mahmood, 2010, Smooth/impulsive linear systems: Axiomatic description, *Linear Algebra and its Applications* 433 (2010) 1997–2009.

24. N. P. Karampetakis and P. Tzekis, 2001, On the computation of the inverse of a polynomial matrix, *IMA Journal of Control and its Information*, 18, No.1, pp.83-97.

Citations

1. P. Stanimirovic, 2003, A finite algorithm for generalized inverses of polynomial and rational matrices, *Applied Mathematics and Computation*, Volume 144, Issues 2-3, 10 December 2003, Pages 199-214.
2. Predrag S. Stanimirovic, Marko D. Petkovic, 2005, Computing generalized inverse of polynomial matrices by interpolation, *Applied Mathematics and Computation* xxx (2005) xxx–xxx.
3. Milan B. Tasic', Predrag S. Stanimirovic', Marko D. Petkovic, 2007, Symbolic computation of weighted Moore–Penrose inverse using partitioning method, *Applied Mathematics and Computation*, to appear.
4. Marko D. Petkovic, Predrag S. Stanimirovic, 2006, Interpolation algorithm of Leverrier-Faddev type for polynomial matrices. *Numer. Algorithms*, 42, no.3-4, pp.345-361..
5. Marko D. Petković, Predrag S. Stanimirović and Milan B. Tasić, 2007, Effective partitioning method for computing weighted Moore–Penrose inverse, *Computers & Mathematics with Applications*, to appear.
6. Milan B. Tasic, Predrag S. Stanimirovic, 2008, Symbolic and recursive computation of different types of generalized inverses, *Applied Mathematics and Computation*, 199, 349–367.

7. Stanimirovic PS, Tasic MB, Vu KM, 2009, Extensions of Faddeev's algorithms to polynomial matrices, *APPLIED MATHEMATICS AND COMPUTATION*, Volume: 214, Issue: 1, Pages: 246-258.
8. Marko D. Petkovic, 2008, SIMBOLICKO IZRACUNAVANJE HANKELOVIH DETERMINANTI I GENERALISANIH INVERZA MATRICA, Doktorska disertacija, Ni-s, Jun 2008.
9. Nitin Vats, 2009, NNRU, a noncommutative analogue of NTRU. <http://arxiv.org/abs/0902.1891>, CGC (Combinatorial Group Theory and Cryptography) Bulletin 24.
10. Malika Yaici and Kamel Hariche, On Solvents of Matrix Polynomials, *International Journal of Modeling and Optimization*, Vol. 4, No. 4, August 2014.

25) N. P. Karampetakis and S. Vologiannidis, 2003, DFT calculation of the generalized and Drazin inverse of a polynomial matrix, *Applied Mathematics and Computation*, 143, Issues 2-3, November 10, 2003, pp.501-521. (impact factor 0,426)

Citations

1. Marko D. Petković, Predrag S. Stanimirović, 2007, Interpolation algorithm for computing Drazin inverse of polynomial matrices, *Linear Algebra and its Applications*, to appear.
2. Milan B. Tasić, Predrag S. Stanimirović, Marko D. Petkovic, 2007, Symbolic computation of weighted Moore–Penrose inverse using partitioning method, *Applied Mathematics and Computation*, to appear.
3. Marko D. Petković, Predrag S. Stanimirović and Milan B. Tasić, 2007, Effective partitioning method for computing weighted Moore–Penrose inverse, *Computers & Mathematics with Applications*, to appear.
4. Milan B. Tasic, Predrag S. Stanimirovic, 2008, Symbolic and recursive computation of different types of generalized inverses, *Applied Mathematics and Computation*, 199, 349–367.
5. Stanimirovic PS, Tasic MB, Vu KM, 2009, Extensions of Faddeev's algorithms to polynomial matrices, *APPLIED MATHEMATICS AND COMPUTATION*, Volume: 214, Issue: 1, Pages: 246-258.
6. Antoniou GE, n-Order linear state space systems: Computing the transfer function using the DFT, *APPLIED MATHEMATICS AND COMPUTATION*, Vol:170, Issue:2, pp.1077-1084.
7. Marko D. Petkovic, 2008, SIMBOLICKO IZRACUNAVANJE HANKELOVIH DETERMINANTI I GENERALISANIH INVERZA MATRICA, Doktorska disertacija, Ni-s, Jun 2008.
8. Yu, Yaoming,, Wang, Guorong, 2009, DFT calculation for the $\{2\}$ -inverse of a polynomial matrix with prescribed image and kernel, *APPLIED MATHEMATICS AND COMPUTATION*, Vol.215, Issue: 7, pp. 2741-2749.

26) J. Jones, N. P. Karampetakis and A.C. Pugh, 2003, Solutions of discrete ARMA-representations via Maple, *Applied Mathematics and Computation*, 139, Issues 2-3, July 15, 2003, pp.437-489. (impact factor 0,426)

- 27) **N. P. Karampetakis, 2004, Descriptor realizations of autoregressive AR-representations, *IMA Journal of Control and its Information*, 21, 207-221.**

Citation

1. M.S. Akrama, V. Lomadzeb, H. Mahmoodc & M.K. Zafard , 2013, (Singular) state models and (singular) LTID systems, *International Journal of Control*, DOI:10.1080/00207179.2013.849819.

- 28) **N. P. Karampetakis, 2004, On the discretization of singular systems, *IMA Journal of Control and its Information*, 21, pp.223-242.**

Citation

1. Kalogeropoulos GI, Karageorgos AD, Pantelous AA, 2009, Discretising effectively a linear singular differential system by choosing an appropriate sampling period, *IET CONTROL THEORY AND APPLICATIONS*, Volume: 3, Issue: 7, Pages: 823-833.
2. Francisco-Ronay Lopez-Estrada, Didier Theilliol, Carlos Manuel Astorga Zaragoza, Jean-Christophe Ponsart, 2012, Developments of a Scilab/Matlab toolbox dedicated to LTI/LPV descriptor systems for fault diagnosis, 10th European Workshop on Advanced Control and Diagnosis, ACD 2012.
3. Ali Al-Matouq, Tyrone Vincent and Luis Tenorio, 2013, Reduced Complexity Dynamic Programming Solution for Kalman filtering of Linear Discrete Time Descriptor Systems, 2013 American Control Conference (ACC), Washington, DC, USA, June 17-19, 2013.

- 29) **N. Karampetakis and S. Vologiannidis, 2003, Infinite elementary divisor structure-preserving transformations for polynomial matrices, *International Journal of Applied Mathematics and Computer Science*, Vol.13, No.4, pp.493-503.**

Citations

1. P. Lancaster, 2008, Linearization of regular matrix polynomials, *Electronic Journal of Linear Algebra*, vol. 17, pp. 21–27, 2008.
2. Juan C. Zuniga–Anaya, 2011, Structural Properties of Polynomial and Rational Matrices, a survey, *Mathematica Aeterna*, Vol. 1, 2011, no. 06, 361 – 403.
3. Fernando De Teran, Froilan M. Dopico and D. Steven Mackey (2013) Spectral equivalence of matrix polynomials and the index sum theorem, The University of Manchester (Eprint 2013:47, <http://eprints.ma.man.ac.uk/2017/>).
4. Amparan, A; Marcaida, S; and Zaballa, I. (2015), "Finite and infinite structures of rational matrices: a local approach", *Electronic Journal of Linear Algebra*, Vol. 30, pp. 196-226

- 30) **N. P. Karampetakis, 2004, On the solution space of discrete time AR-representations over a finite time horizon. *Linear Algebra and its Applications*, 382, pp.83-116. (impact factor ,0,501)**
- 31) **S. Vologianidis and N. Karampetakis, 2004, Inverses of multivariable polynomial matrices by discrete Fourier transforms, *Multidimensional Systems and Signal Processing*, 15, pp.341-361. (impact factor ,0,278)**

Citations

1. Lobo, R., Bitzer D.L., and M.A. Vouk, "Inverses of Multivariate Polynomial Matrices using Discrete Convolution," Proceedings of the International Workshop on Coding and Cryptography (WCC05), March 14-18, 2005, Bergen (Norway), to Appear.
2. Lobo, R., Bitzer D.L., and M.A. Vouk, 2006, Locally invertible multivariate polynomial matrices, CODING AND CRYPTOGRAPHY, LECTURE NOTES IN COMPUTER SCIENCE, 3969: 427-441 2006.
3. Milan B. Tasic', Predrag S. Stanimirovic', Marko D. Petkovic, 2007, Symbolic computation of weighted Moore–Penrose inverse using partitioning method, *Applied Mathematics and Computation*, to appear.
4. Marko D. Petković, Predrag S. Stanimirović and Milan B. Tasić, 2007, Effective partitioning method for computing weighted Moore–Penrose inverse, *Computers & Mathematics with Applications*, to appear.
5. Milan B. Tasic, Predrag S. Stanimirovic, 2008, Symbolic and recursive computation of different types of generalized inverses, *Applied Mathematics and Computation*, 199, 349–367.
6. Stanimirovic PS, Tasic MB, Vu KM, 2009, Extensions of Faddeev's algorithms to polynomial matrices, APPLIED MATHEMATICS AND COMPUTATION, Volume: 214, Issue: 1, Pages: 246-258.

- 32) **N. Karampetakis, S. Vologianidis and A.I. Vardulakis, 2003, On a new equivalence for polynomial matrices, *International Journal of Control*, Vol.77, No.6, pp.584-597. (impact factor 0,912)**

Citations

1. Fernando De Teran, Froilan M. Dopico and D. Steven Mackey (2013) Spectral equivalence of matrix polynomials and the index sum theorem, The University of Manchester (Eprint 2013:47, <http://eprints.ma.man.ac.uk/2017/>).
2. Amparan, A; Marcaida, S; and Zaballa, I. (2015), "Finite and infinite structures of rational matrices: a local approach", *Electronic Journal of Linear Algebra*, Vol. 30, pp. 196-226

- 33) **N. P. Karampetakis and P. Tzekis, 2005, On the computation of the minimal polynomial of a polynomial matrix, *International Journal of Applied Mathematics and Computer Science*, Vol.15, No.3, pp.339-349.**

Citations

1. Bo Yu, Jintao Zhang and Yanyan Xu, 2015, The RCH method for computing minimal polynomials of polynomial matrices, *Journal of Systems Science and Complexity*, February 2015, Volume 28, Issue 1, pp 190-209.
- 34) **N. P. Karampetakis and A.I.G. Vardulakis, 2006, Special Issue on the Use of Computer Algebra Systems for Computer Aided Control Systems Design, *International Journal of Control*, Vol.79, No.11, pp.1313-1320.**

Citations

1. Krishnachandran, V.N., Joy, R.C., Siji, K.B., 2012, More CAS's in maths classrooms: An urgent imperative, 2012 IEEE International Conference on Technology Enhanced Education (ICTEE), 3-5 Jan. 2012, Kerala.
- 35) **Predrag S. Stanimirović, N. P. Karampetakis and Milan B. Tasić, 2007, Computing generalized inverses of a rational matrix and applications, *Journal of Applied Mathematics and Computing*, Vol.24, No.1-2, pp.81-94.**

Citations

1. N. Matzakos D. Pappas, 2009, EP matrices: Computation of the Moore-Penrose Inverse via factorizations, *Journal of Applied Mathematics and Computing*, DOI: 10.1007/s12190-009-0311-0.
2. N. Matzakos · D. Pappas, 2010, EP matrices: computation of the Moore-Penrose inverse via factorizations, *of Applied Mathematics and Computing* Vol 34: 113–127.
3. •ara□evi□ Muzafer H., Ma•ovi□ Sead H., Kamberovi□ Hamza, 2012, Application of JAVA and UML tools to better quality of some matrices computations, *Communications in Dependability and Quality Management*, vol. 15, br. 3, str. 21-31
- 36) **N. P. Karampetakis, Predrag S. Stanimirović and Milan B. Tasić, 2007, On the computation of the Drazin inverse of a polynomial matrix, Vol.26, Issue 1, pp. 1-255, *Far East Journal of Mathematical Sciences*.**

Citation

1. Stanimirovic PS, Tasic MB, Vu KM, 2009, Extensions of Faddeev's algorithms to polynomial matrices, *APPLIED MATHEMATICS AND COMPUTATION*, Volume: 214, Issue: 1, Pages: 246-258.
- 37) **A. C. Pugh, E. N. Antoniou, N. P. Karampetakis, 2007, Equivalence of AR-representations in the light of the impulsive-smooth behaviour, *International Journal of Robust and Nonlinear Control* (Special issue for Polynomial Design Methods, Edited by Michael Sebek and Martin Hromcik), Vol.17, Issue 8, pp. 769-785.**

Citations

1. Lomadze V., 2009, Generalised) autoregressive models and their trajectories, INTERNATIONAL JOURNAL OF CONTROL Volume: 82 Issue: 10 Pages: 1929-1936.
 2. Vakhtang Lomadze, Hasan Mahmood, 2010, Smooth/impulsive linear systems: Axiomatic description, Linear Algebra and its Applications 433 (2010) 1997–2009.
 3. Fuhrmann, P.A., Helmke, U.b 2011, Equivalence conditions for behaviors and the Kronecker canonical form, Mathematics of Control Signal and Systems, Volume 22, Issue 4, August 2011, Pages 267-293
- 38) **P. Tzekis, N. P. Karampetakis and H. Terzidis, 2007, On the computation of the GCD of 2-D polynomials, *International Journal of Applied Mathematics and Computer Science*, Vol.17, No.4, pp. 463-470.**
- 39) **N. P. Karampetakis, 2007, On the solution of the implicit Roesser model, Bulletin of the Polish Academy of Technical Sciences, Vol.55, Issue 4, pp. 365-378.**
- 40) **A.I.G. Vardulakis, N.P. Karampetakis, E.N. Antoniou and Evangelia Tictopoulou, 2009, On the Realization Theory of Polynomial Matrices and the Algebraic Structure of Pure Generalized State Space Systems, International Journal of Applied Mathematics and Computer Science, Vol. 19, Issue: 1, pp. 77-88.**

Citations

1. Korotka, T., Loiseau, J.J., Zagalak, P., Kucera, V., 2012, Sufficiency conditions for pole assignment in column-regularizable implicit linear systems, 17th International Conference on Methods and Models in Automation and Robotics, MMAR 2012, Article number 6347844, Pages 457-457e
 2. Elizabeth. S and Jothilakshmi. R., 2013, Observability and Controllability of MIMO Control Systems via Difference Equations. International Journal of Computer Applications 62(1):37-42, January 2013. Published by Foundation of Computer Science, New York, USA
- 41) **N. P. Karampetakis and S. Vologianidis, 2009, On the fundamental matrix of the inverse of a polynomial matrix and applications to ARMA representations, Linear Algebra and Its Applications, Vol.431, pp. 2261-2276.**
- 42) **N.P. Karampetakis, E.N. Antoniou, A.I.G. Vardulakis, and S. Vologianidis, 2009, Symbolic Computations on Rings of Rational Functions and Applications in Control Engineering, Computer Aided Systems Theory – EUROCAST 2009, Lecture Notes in Computer Sciences Vol.5717/2009, Editors : Roberto Moreno – Diaz, Franz Pichler and Alexis Quesada-Arencibia, 12th International Conference, Las Palmas de Gran Canaria, Spain,**

February 2009, Revised selected papers, Springer Berlin/Heidelberg 2009, pp.587-594.

- 43) N. P. Karampetakis, 2010, Matrix Pencil Equivalents of Symmetric Polynomial Matrices, Special Issue: Recent Developments in Multidimensional Systems, Control and Signals—Theory and Applications, Asian Journal of Control, Vol.12, No.2.

Citations

1. Vologiannidis, S., Antoniou, E.N., 2011, A permuted factors approach for the linearization of polynomial matrices, Mathematics of Control Signal and Systems, Volume 22, Issue 4, August 2011, Pages 317-342
2. Herwig Peters, Nicole Kessissoglou, and Steffen Marburg, 2013, Modal decomposition of exterior acoustic-structure interaction, J. Acoust. Soc. Am. Volume 133, Issue 5, pp. 2668-2677.

- 44) Nicholas P. Karampetakis · Alexandros Evripidou, 2012, On the computation of the inverse of a two-variable polynomial matrix by interpolation, Multidim Syst Sign Process, Volume 23, Issue 1-2, pp 97-118, DOI 10.1007/s11045-010-0102-7.

- 45) 2012, Multidimensional Systems and Signal Processing. Guest Editorial : Special Issue on : Advances in multidimensional systems and signal processing Guest Editors : Nicholas P. Karampetakis and Krszystof Galkowski, Vol.23, pp.1–3.

- 46) Dimitris N. Varsamis and Nicholas P. Karampetakis, 2014, On the Newton bivariate polynomial interpolation with applications, Multidim Syst Sign Process, DOI: 10.1007/s11045-012-0198-z.

Citations

1. Xia, Likun and Hussin, Fawnizu Azmadi and Malik, Aamir Saeed (2012) *A Novel Algorithm for Automated Model Generation of Analog Circuits Using Chebyshev-Newton Interpolation*. In: International Conference on Advanced Electrical Engineering (ICAEE), Aug. 29-30, 2012, Hong Kong, China.

- 47) Nicholas P. Karampetakis, 2015, Construction of Algebraic-Differential Equations with given Smooth and Impulsive Behavior, IMA Journal of Mathematical Control & Information. vol.32 no.1. .

- 48) Nicholas P. Karampetakis and Anastasia Gregoriadou, 2014, Reachability and Controllability of Discrete Time Descriptor Systems, International Journal of Control, Vol.87, Issue 2, pp.235-248.

- 49) Dimitris Varsamis, Nicholas Karampetakis and Paris Mastorocostas, 2014, An optimal bivariate polynomial

interpolation basis for the application of the evaluation-interpolation technique, *Appl. Math. Inf. Sci.*, Vol.28, Issue 1, pp.117-125.

- 50) Nicholas P. Karampetakis and Karamichalis Rallis, 2014, Discretization of Singular Systems and Error Estimation, *International Journal of Applied Mathematics and Computer Science (AMCS)*, Vol.24, No.1, p.65-73.

Citation

Cheng Zeng, Shan Liang, Yuzhe Zhang, Jiaqi Zhong, Yingying Su, 2014, Improving the stability of discretization zeros with the Taylor method using a generalization of the fractional-order hold, *International Journal of Applied Mathematics and Computer Science*. Volume 24, Issue 4, Pages 745–757

- 51) Dimitris Varsamis and Nicholas Karampetakis, 2014, Optimal Degree Estimation of the Determinant of a Polynomial Matrix, *Appl. Math. Inf. Sci.* 8, No. 2, 827-831.
- 52) A. S. Karetsoy and Nicholas P. Karampetakis, 2014, Linearization of bivariate polynomial matrices expressed in non monomial bases, *Multidimensional Systems and Signal Processing*, Vol. 26 no. 2 p. 503-517.

Papers presented in International Conferences

- 1) Karampetakis N.P. and Vardulakis A.I.G., 1991, Polynomial matrices and equivalent singular pencils., *Workshop on Singular Systems*, organized by Prof. N. Karcnias, City University, December 1991.
- 2) Karampetakis N.P., Pugh A.C. and Vardulakis A.I.G., 1992, Equivalence Transformations of Rational Matrices., *Proceedings of the Second IFAC Workshop on Systems Structure and Control*, Prague 3-5 September 1992, PERGAMON PRESS, pp.40-43.
- 3) Karampetakis N.P., Pugh A.C., Hayton G.E. and Vardulakis A.I.G., 1992, On a fundamental notion of equivalence in Linear System Theory., *Proceedings of the Second IFAC Workshop on Systems Structure & Control*, Prague 3-5 September 1992, PERGAMON PRESS, pp.356-359.

Citations

1. Mahmood S., 1996, *Some Structural Problems Arising in the Generalized Theory of Linear Multivariable Control Systems*, Ph. D. Thesis, Loughborough University of Technology, U.K.

- 4) Pugh A.C., Karampetakis N.P., Hayton G.E. and Vardulakis A.I.G., 1992, Interpretation of a certain McMillan degree condition appearing in Control., *Proceedings of Sixth IMA Conference on*

Control : Modelling, Computation, Information, U.M.I.S.T., 2-4 September 1992.

- 5) **Karampetakis N.P. and Vardulakis A.I.G., 1992, On the solution space of singular state-space AR-representations., *Proceedings of International Symposium on Implicit and Nonlinear Systems*, pp.191-196, 14-15 December 1992, Fort Worth, Texas.**
- 6) **Pugh A.C., Karampetakis N.P., Hayton G.E. and Vardulakis A.I.G., 1992, A fundamental notion of equivalence for Linear Multivariable Systems., *Proceedings of the 31st IEEE Conference on Decision and Control*, Tuscon, Arizona, Dec. 1992.**
- 7) **Karampetakis N.P., Mertzios B.G. and Vardulakis A.I.G., 1993, Generalized models of 2-D linear discrete systems and computation of its transfer function matrix., *Proceedings of the Second European Control Conference*, pp. 1490-1494, June 28-July 1, 1993, Groningen, The Netherlands.**
- 8) **Karampetakis N.P. and Vardulakis A.I.G., 1993, On the behavior of discrete-time AR-Representations., *Proceedings of the IEEE Mediterranean Symposium on New Directions in Control Theory*, June 21- June 23, 1993, Chania, Crete, GREECE.**
- 9) **Karampetakis N.P., Pugh A.C., Vardulakis A.I.G. and Hayton G.E., 1993, Structural properties of square inverse linear systems., *Proceedings of the IEEE Mediterranean Symposium on New Directions in Control Theory*, June 21-23, 1993, Chania. Crete, GREECE.**
- 10) **Karampetakis N.P. and Vardulakis A.I.G., 1993, On the behavior of continuous-time AR-Representations., *Proceedings of the Second European Control Conference*, pp.1784-1789, June 28- July 1, 1993, Groningen, The Netherlands.**

Citations

1. Mahmood S., 1996, *Some Structural Problems Arising in the Generalized Theory of Linear Multivariable Control Systems*, Ph. D. Thesis, Loughborough University of Technology, U.K.
 2. Henri Bourles, 2003, Impulsive behaviours of discrete and continuous time varying systems: A unified approach, ECC'03.
 3. Henri Bourles, 2004, Impulsive systems and behaviors in the theory of linear dynamical systems, Forum Mathematicum.
 4. Lomadze V., 2009, Generalised) autoregressive models and their trajectories, INTERNATIONAL JOURNAL OF CONTROL Volume: 82 Issue: 10 Pages: 1929-1936.
- 11) **Karampetakis N.P., Pugh A.C., Vardulakis A.I.G. and Hayton G.E., 1993, An extension of Wolovich's definition of equivalence of**

Linear Systems., Proceedings of the 32nd IEEE Conference on Decision & Control , pp.2389-2394, December 15-17, 1993.

- 12) Karampetakis N.P., Pugh A.C., Vardulakis A.I.G. and Hayton G.E., 1994, Observations on the notion of minimality in the generalized state-space., *Proceedings of the IEEE Mediterranean Symposium on New Directions in Control Theory and Applications*, pp.592-599, June 19-22, 1994, Chania, Crete, CREECE.

Citations

1. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.

- 13) Karampetakis N.P., Pugh A.C. and Vardulakis A.I.G., 1994, Generalized state-space representations for Linear Multivariable Systems., *Proceedings of the 2nd IEEE Mediterranean Symposium on New Directions in Control Theory and Applications*, pp.209-216, June 19-22, 1994, Chania, Crete, GREECE.

- 14) Karampetakis N.P., Pugh A.C., and Hayton G.E., 1995, Notes on a hierarchical theory of systems., *Proceedings of the 3rd IEEE Mediterranean Symposium on New Directions in Control Theory and Applications*, pp.135-142, Limassol, Cyprus, July 11-13, 1995.

- 15) Karampetakis N.P., and Vardulakis A.I., 1995, On the solution of ARMA-representations., *Proceedings of the 3rd IEEE Mediterranean Symposium on New Directions in Control Theory and Applications*, pp.156-163, Limassol, Cyprus, July 11-13, 1995.

Citations

1. Mahmood S., 1996, *Some Structural Problems Arising in the Generalized Theory of Linear Multivariable Control Systems*, Ph. D. Thesis, Loughborough University of Technology, U.K.

- 16) Karampetakis N. P. and Vardulakis A.I.G., On the reduction of a polynomial matrix model of a linear multivariable system to generalised state space form., *Proceedings of the EURACO Workshop on "Recent Results in Robust and Adaptive Control"*, 11-14th September, 1995, Florence, Italy, pp.65-92.

Citations

1. Mahmood S., 1996, *Some Structural Problems Arising in the Generalized Theory of Linear Multivariable Control Systems*, Ph. D. Thesis, Loughborough University of Technology, U.K.
2. F. Kraffer, 1996, Polynomial matrix to state space conversion without polynomial reduction, 4th IEEE Mediterranean Symposium on New Directions in Control and Automation, Maleme, Krete, Greece, June 10-13, 1996, ThA-1.5 (<http://med.ee.nd.edu/MED%201996/kraffer.pdf>).

- 17) Pugh A.C., Karampetakis N.P., Mahmood S. and Hayton G.E., 1995, Admissible initial conditions for regular PMDs., *Proceedings of the 34th IEEE Conference on Decision and Control*, pp.307-308, December 13-15, 1995, New Orleans, Louisiana.
- 18) Karampetakis N.P., Pugh A.C. and Hayton G.E., 1995, The output zeroing problem for general polynomial descriptions., *Proceedings of the 34th IEEE Conference on Decision and Control*, pp.3194-3199, December 13-15, 1995, New Orleans, Louisiana.
- 19) Jones J., Karampetakis N. P. and Pugh A.C., 1996, Some applications of MAPLE in Linear Systems Analysis, *Proceedings of the IEE Colloquium on "Symbolic Computation for Control"*, London, 2 April, 1996.

Citations

1. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.
- 20) Jones J., Karampetakis N. P. and Pugh A.C., 1996, Solution of discrete ARMA-representations via MAPLE, presented in a *Poster Session of the EURACO Network (EUropean Robust and Adaptive Control Network)*, Algarve, Portugal, 13-17 May 1996.

Citations

1. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.
- 21) Karampetakis N. P., Jones J. and Antoniou S., 1996, Forward, backward and symmetric solutions of discrete ARMA representations., presented in a *Poster Session of the EURACO Network (EUropean Robust and Adaptive Control Network)*, Algarve, Portugal, 13-17 May 1996.
- 22) Mahmood S., Karampetakis N. P. and Pugh A.C., 1996, On the information carried by column (row) reduced MFDs, *Proceedings of the 4th IEEE Mediterranean Symposium on New Directions in Control and Automation*, pp. 119-124, June 10-14, 1996, Chania, Greece.
- 23) Tzekis P., Karampetakis N.P. and Vardulakis A.I., 1996, Solutions of Matrix Diophantine equations over rings via MAPLE, *Proceedings of the 4th IEEE Mediterranean Symposium on New Directions in Control and Automation*, June 10-14, 1996, Chania, Crete.

Citations

1. Π. Τζέκης, 2001, Ανάπτυξη αλγορίθμων Η/Υ για την ανάλυση και σύνθεση γραμμικών πολυμεταβλητών συστημάτων αυτομάτου ελέγχου, Διδακτορική Διατριβή, Τμήμα Μαθηματικών του Α.Π.Θ.

2. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.
 3. P.A. Tzekis, 2007, A new algorithm for the solution of a polynomial matrix Diophantine equation, *Applied Mathematics and Computation*, Volume 193, Issue 2, 1 November 2007, Pages 395-407.
 4. Tzekis, P.A., Antoniou, E., Vologiannidis, S., 2013, Computation of the general solution of a multivariate polynomial matrix Diophantine equation, 21st Mediterranean Conference on Control and Automation, MED 2013; Platania-Chania, Crete; Greece; 25 June 2013 through 28 June 2013; Category number CFP13MED-ART; Code 99950, Article number 6608796, Pages 677-682.
 5. Tzekis, P.A., Antoniou, E., Vologiannidis, S., 2013, Computation of the general solution of a multivariate polynomial matrix Diophantine equation, 2013, 21st Mediterranean Conference on Control & Automation (MED), 25-28 June 2013, Chania, Greece, pp.677 – 682, DOI : 10.1109/MED.2013.6608796.
- 24) **Karampetakis N. P., 1996, Generalized inverses of two variable polynomial matrices and applications., *Proceedings of the 4th IEEE Mediterranean Symposium on New Directions in Control and Automation*, pp.220-225, June 10-14, 1996, Chania, Crete.**
 - 25) **Tzekis P., Karampetakis N. P., and Vardulakis A.I., 1996, On the division of polynomial matrices., *Proceedings of the 4th IEEE Mediterranean Symposium on New Directions in Control and Automation*, pp.125-129, June 10-14, 1996, Chania, Crete.**
 - 26) **Mahmood S., Karampetakis N. P. and Pugh A.C., 1996, Structural properties of regular PMDs., *Proceedings of the International Symposium on on the Mathematical Theory of Networks and Systems*, St. Louis, Missouri, June 24-28, 1996.**
 - 27) **Jones J., Karampetakis N. P. and Pugh A.C., 1996, An algorithm for the computation of the generalized inverse and its implementation via MAPLE., *Proceedings of the International Symposium on on the Mathematical Theory of Networks and Systems*, St. Louis, Missouri, June 24-28, 1996.**

Citations

1. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.
 2. A. K. Singh, K. M. Krishna, and S. Saripalli, "Planning trajectories on uneven terrain using optimization and non-linear time scaling techniques," in 2012 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2012, pp. 3538 –3545.
- 28) **Jones J., Karampetakis N. P. and Pugh A.C., 1996, Solution of an ARMA-Representation via its boundary mapping equation.,**

Proceedings of the International Symposium on on the Mathematical Theory of Networks and Systems, St. Louis, Missouri, June 24-28, 1996.

Citations

1. Ε. Αντωνίου, 2000, Ανάλυση ιδιαζόντων γραμμικών συστημάτων διακριτού χρόνου, Διδακτορική Διατριβή, Τμήμα Μαθηματικών του Α.Π.Θ.
2. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.

- 29) Jones J., Karampetakis N. P. and Pugh A.C., 1996, Computation of the generalised inverse of a rational matrix via MAPLE and applications., *Proceedings of the IEEE Symposium on Computer-Aided Control System Design, Dearborn, Michigan, USA, September 15-18, 1996.*

Citations

1. Π. Τζέκης, 2001, Ανάπτυξη αλγορίθμων Η/Υ για την ανάλυση και σύνθεση γραμμικών πολυμεταβλητών συστημάτων αυτομάτου ελέγχου, Διδακτορική Διατριβή, Τμήμα Μαθηματικών του Α.Π.Θ.
2. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.

- 30) Karampetakis N. P., Mahmood S., Pugh A.C. and Hayton G.E., 1996, A characterization of admissibility of the initial conditions of nonregular AR-representations., *Proceedings of the 35th IEEE Conference on Decision and Control, June 30-July 5, 1997, Kobe, Japan.*

- 31) Karampetakis N. P., Jones J. and Antoniou S., 1997, Forward, backward and symmetric solutions of discrete time ARMA-representations, *Proceedings of the 4th European Control Conference, 1-4 July, 1997, Brussels, Belgium.*

Citations

1. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.

- 32) Karampetakis N. P., Pugh A.C., and Hayton G.E., 1997, A fundamental notion of equivalence for AR-representations, *Proceedings of the 4th European Control Conference, 1-4 July, 1997, Brussels, Belgium (Mathematical Report No.A271, Department of Mathematical Sciences, Loughborough University of Technology, U.K.)*

Citations

1. Henri Bourles, 2003, Impulsive behaviours of discrete and continuous time varying systems: A unified approach, ECC'03.

- 33) **J. Jones, P. Tzekis and N. P. Karampetakis, 1997, The use of MAPLE in linear systems analysis and synthesis., *Proceedings of the 4th European Control Conference*, 1-4 July, 1997, Brussels, Belgium.**

Citations

1. Ε. Αντωνίου, 2000, Ανάλυση ιδιαζόντων γραμμικών συστημάτων διακριτού χρόνου, Διδακτορική Διατριβή, Τμήμα Μαθηματικών του Α.Π.Θ.
 2. Π. Τζέκης, 2001, Ανάπτυξη αλγορίθμων Η/Υ για την ανάλυση και σύνθεση γραμμικών πολυμεταβλητών συστημάτων αυτομάτου ελέγχου, Διδακτορική Διατριβή, Τμήμα Μαθηματικών του Α.Π.Θ.
 3. Jones J., 1999, Ph. D. Thesis, Department of Mathematics, Loughborough University of Technology, U.K.
- 34) **A. I. G. Vardulakis, S. N. Antoniou and N. P. Karampetakis, 1997, A spectral characterization of the behavior of discrete time AR-Representations over a finite time interval, *Proceedings of the 4th European Control Conference*, 1-4 July, 1997, Brussels, Belgium.**
- 35) **S. N. Antoniou, N. P. Karampetakis and A. I. G. Vardulakis, 1997, A classification of the solution of non-regular, discrete time descriptor systems., *Proceedings of the 36th IEEE Conference on Decision and Control*.**
- 37) **N. P. Karampetakis and P. Tzekis, 1998, Notes on the computation of the inverse of a polynomial matrix, *6th IEEE Mediterranean Conference on Control and Automation*, Alghero, Sardinia, Italy, June 9-11, 1998.**

Citations

1. M. D. Petcovic and P. S. Stanimirovic, Symbolic computation of the Moore–Penrose inverse using a partitioning method, *International Journal of Computer Mathematics*, Vol. 82, No. 3, March 2005, 355–367.
2. Milan B. Tasic´, Predrag S. Stanimirovic´, Marko D. Petkovic, 2007, Symbolic computation of weighted Moore–Penrose inverse using partitioning method, *Applied Mathematics and Computation*, to appear.
3. Marko D. Petković, Predrag S. Stanimirović and Milan B. Tasić, 2007, Effective partitioning method for computing weighted Moore–Penrose inverse, *Computers & Mathematics with Applications*, to appear.
4. P. S. Stanimirovic and M. B. Tasic, 2008, Computing generalized inverses using LU factorization of matrix product. *International Journal of Computer Mathematics*, to appear.

5. Milan B. Tasic, Predrag S. Stanimirovic, 2008, Symbolic and recursive computation of different types of generalized inverses, *Applied Mathematics and Computation*, 199, 349–367.
 6. Stanimirovic PS, Tasic MB, Vu KM, 2009, Extensions of Faddeev's algorithms to polynomial matrices, *APPLIED MATHEMATICS AND COMPUTATION*, Volume: 214, Issue: 1, Pages: 246-258.
- 38) **Karampetakis N.P., 1999, Descriptor realizations of AR-Representations, 5th European Control Conference.**
- 39) **Karampetakis N.P. and Tzekis P., 1999, Symbolic manipulation of rational matrices and applications, CACSD'99, Hawaii, U.S.A., Aug. 16-22, 1999 (Prof. Varga has invited me to be a co-chair in the session TuA1 Computer Algebra in CACSD).**

Citations

1. Vázquez Seisdedos, Luis; Llosas Albuérne, Yolanda; Mazaira Morales, Israel; Bychkó, Houdayer, Basilio, LABORATORIO SIMULADO DE GENERADOR DE VAPOR CON DOMO, Ciencia en su PC, ISSN (Versión impresa): 1027-2887, cpc@megacen.ciges.inf.cu, Instituto de Información Científica y Tecnológica, Cuba.
 2. Poornaselvan K J, 2014, Modeling and control of Superheated steam Temperature control process, Ph.D. Thesis, FACULTY OF ELECTRICAL ENGINEERING, ANNA UNIVERSITY, CHENNAI 600 025, India
- 40) **P. Stanimirovic and N. P. Karampetakis, 2000, Symbolic implementation of Leverrier-Faddeev algorithm and applications., 7th IEEE Mediterranean Conference on Control & Automation, Patra, Greece.**

Citations

1. Marko D. Petković, Predrag S. Stanimirović and Milan B. Tasić, 2007, Effective partitioning method for computing weighted Moore–Penrose inverse, *Computers & Mathematics with Applications*, to appear.
 2. Milan B. Tasic, Predrag S. Stanimirovic, 2008, Symbolic and recursive computation of different types of generalized inverses, *Applied Mathematics and Computation*, 199, 349–367.
 3. Stanimirovic PS, Tasic MB, Vu KM, 2009, Extensions of Faddeev's algorithms to polynomial matrices, *APPLIED MATHEMATICS AND COMPUTATION*, Volume: 214, Issue: 1, Pages: 246-258.
 4. Marko D. Petkovic, 2008, SIMBOLICKO IZRACUNAVANJE HANKELOVIH DETERMINANTI I GENERALISANIH INVERZA MATRICA, Doktorska disertacija, Ni-s, Jun 2008.
- 41) **P. Tzekis, N.P. Karampetakis and A.I.G. Vardulakis , 2001, RATRIX : A RAtional matRIX calculator for computer aided analysis and synthesis of linear multivariable control systems, KTISIVIOS, National Conference on Automation, Robotics and Industrial Production, Santorini, June 28-30, 2001.**

- 42) **N. P. Karampetakis and P. Stanimirovic, 2001, On the computation of the Drazin inverse of a polynomial matrix, 1st IFAC Symposium on System Structure and Control, August 29-31, 2001, Prague, Czech Republic.**

Citation

1. Marko D. Petković, Predrag S. Stanimirović and Milan B. Tasić, 2007, Effective partitioning method for computing weighted Moore–Penrose inverse, *Computers & Mathematics with Applications*, to appear.

- 43) **N. P. Karampetakis, 2001, On a new notion of equivalence of polynomial matrices, 1st IFAC Symposium on System Structure and Control, August 29-31, 2001, Prague, Czech Republic.**

- 44) **N. P. Karampetakis, 2001, On the construction of the forward and backward solution space of a discrete time AR-Representation, Proceedings of the 15th IFAC World Congress 2002. (co-chair)**

Citations

1. Henri Bourles, 2003, Impulsive behaviours of discrete and continuous time varying systems: A unified approach, ECC'03.
2. Henri Bourles, 2004, Impulsive systems and behaviors in the theory of linear dynamical systems, *Forum Mathematicum*.

- 45) **N. P. Karampetakis, 2001, On the determination of the dimension of the solution space of a discrete time AR-Representation, Proceedings of the 15th IFAC World Congress 2002. (co-chair)**

Citations

1. Henri Bourles, 2003, Impulsive behaviours of discrete and continuous time varying systems: A unified approach, ECC'03.
2. Henri Bourles, 2004, Impulsive systems and behaviors in the theory of linear dynamical systems, *Forum Mathematicum*.

- 46) **N. P. Karampetakis, S. Vologianidis and A.I. Vardulakis, 2001, Notions of equivalence for discrete time AR-representations, Proceedings of the 15th IFAC World Congress 2002. (invited paper)**

- 47) **N. Karampetakis and S. Vologiannidis, 2002, DFT calculation of the generalized and Drazin inverse of a polynomial matrix. (invited paper) Proceedings of the 13th IEEE International Symposium on Computer-Aided Control System Design (CACSD), 18th – 20th September 2002, Glasgow, Scotland, UK.**

- 48) **N. Karampetakis and S. Vologiannidis, 2002, Notions of equivalence for discrete time AR-Representations, (invited speaker on a session dedicated to the 70th anniversary of Prof. Tadeusz Kaczorek), A new 8th IEEE International Conference on**

Methods and Models in Automation and Robotics, 2-5 September 2002, Szczecin, Poland.

- 49) **A.I. Vardulakis, N.P. Karampetakis, E. Antoniou, P. Tzekis and S. Vologiannidis, 2003, A descriptor package for Mathematica, 11th Mediterranean Conference on Control and Automation, 18-20 June 2003, Rhodes, Greece.**

Citations

1. N. Munro, 2003, A polynomial control systems package, Proceedings of the 11th Mediterranean Conference on Control and Automation, June 18-20, Rhodes, Greece.

- 50) **N. P. Karampetakis and S. Vologiannidis, 2003, Inverses of multivariable polynomial matrices by discrete Fourier transforms, (invited paper) European Control Conference 2003, Cambridge, 1-4 September 2003, U.K.**

- 51) **N. P. Karampetakis and S. Vologiannidis, 2004, On the fundamental matrix of the inverse of a polynomial matrix with applications, 12th IEEE Mediterranean Conference on Control and Automation, Kusadasi, Turkey, June 6-9, 2004.**

Citations

1. Milan B. Tasic, Predrag S. Stanimirovic, Marko D. Petkovic, 2007, Symbolic computation of weighted Moore–Penrose inverse using partitioning method, Applied Mathematics and Computation, Volume 189, Issue 1, 1 June 2007, Pages 615-640.

- 52) **P. Kujan, M. Hromcik, M. Sebek, N.P. Karampetakis, E.N. Antoniou and S. Vologiannidis, 2004, Effective computations with 2-variable polynomial matrices in MATHEMATICA, 12th IEEE Mediterranean Conference on Control and Automation, Kusadasi, Turkey, June 6-9, 2004.**

- 53) **E.N. Antoniou, S. Vologiannidis, N. Karampetakis, “Linearizations of polynomial matrices with symmetries and their applications”, Proc. of the Joint 2005 International Symposium on Intelligent Control & 13th Mediterranean Conference on Control and Automation (2005 ISIC-MED), June 2005, Limassol, Cyprus.**

Citations

1. Jared L. Aurentz, Thomas Mach, Raf Vandebril, and David S. Watkins, 2014, A note on companion pencils, Contemporary Mathematics

- 54) **N. P. Karampetakis, 2005, On the solution of the implicit Roesser model, Proceedings of the 13th Mediterranean Conference on Control and Automation, Limassol, Cyprus, June 27-29, 2005.**

- 55) **N. P. Karampetakis, 2005, On the solution of the general singular model of 2-D systems, Proceedings of the 16th IFAC World Congress 2005, Praha, Czech Republic, July 4-8, 2005.**
- 56) **P. Tzekis and N. P. Karampetakis, 2005, On the computation of the minimal polynomial of a two-variable polynomial matrix, 4th International Workshop on Multidimensional (nD) Systems NDS 2005, July 10-13, 2005, University of Wuppertal, Wuppertal, Germany.**

Citations

Bo Yu, Jintao Zhang and Yanyan Xu, 2015, The RCH method for computing minimal polynomials of polynomial matrices, *Journal of Systems Science and Complexity*, February 2015, Volume 28, Issue 1, pp 190-209.

- 57) **A.C. Pugh, E. Antoniou and N. P. Karampetakis, Equivalence of AR-Representations in the Light of the Impulsive-Smooth Behavior, Proceedings of the 44th IEEE Conference on Decision and Control, and the European Control Conference, pp.1547-1552, December 12-15, 2005, Seville, Spain.**
- 58) **A.C.Pugh, G.E. Hayton, E.M.O. EL-Nabrawy and N. P. Karampetakis, 2006, Numerator-Denominator Structures of n-D MFDs, Proc. of the 14th Mediterranean Conference on Control and Automation (MED'06), June 2006, Ancona, Italy.**
- 59) **M.S. Boudellioua and N.P. Karampetakis, 2006, Zero-Coprime System Equivalence of Singular 2-D Linear Models, Proc. of the 14th Mediterranean Conference on Control and Automation (MED'06), June 2006, Ancona, Italy.**
- 60) **N. P. Karampetakis, 2006, Linearization of 2-D symmetric polynomial matrices, IEEE international Symposium on Computer Aided Control Systems Design (CACSD'06), October 2006, Munich, Germany.**
- 61) **P. Tzekis, N. P. Karampetakis and H.K. Terzidis, On the computation of the GCD (LCM) of 2-D polynomials, European Control Conference, Kos, Greece, July 2-5, 2007.**
- 62) **A.I.G. Vardulakis, N. P. Karampetakis and E. Antoniou, On the realization theory of polynomial matrices and the algebraic structure of pure generalized state space systems, European Control Conference, Kos, Greece, July 2-5, 2007.**
- 63) **A.I.G. Vardulakis, N.P. Karampetakis, E. Antoniou, S. Vologiannidis Descriptor Systems Toolbox : A Mathematica-Based Package for Descriptor Systems, 2008 IEEE International**

Symposium on Computer-Aided Control System Design (CACSD 2008), San Antonio, Texas, USA.

- 64) Dimitris Varsamis, Nikos Karampetakis, 2008, PolyxGui : A New Graphical User Interface (GUI) for the Polynomial Toolbox POLYX, 16th Mediterranean Conference on Control and Automation, Ajaccio, France, June 25-27, 2008.**
- 65) N.P. Karampetakis, E.N. Antoniou, A.I.G. Vardulakis, and S. Vologiannidis, 2009, Symbolic Computations on Rings of Rational Functions and Applications in Control Engineering, Computer Aided Systems Theory – EUROCAST 2009, Proceedings of the 12th International Conference, Las Palmas de Gran Canaria, Spain, February 2009.**
- 66) N. P. Karampetakis and A. Grigoriadou, 2011, On a first order hold discretization for singular systems, 2011 International Conference on Communications, Computing and Control Applications (CCCA'11), March 3-5, 2011, Hammamet, Tunisia.**
- 67) D. Varsamis and N. P. Karampetakis, 2011, On the Newton multivariate polynomial interpolation with applications, 7th International Workshop on Multidimensional (nD) Systems, September 5-7, 2011, Poitiers, France.**

Citation

- 1. Likun Xia, Muhammad Umer Farooq and Ian M. Bell, 2015, High level fault modeling of analog circuits through automated model generation using Chebyshev and Newton interpolating polynomials, Analog Integrated Circuits and Signal Processing, January 2015, Volume 82, Issue 1, pp 265-283**
- 68) Nicholas P. Karampetakis, 2012, Construction of algebraic-differential equations with given smooth-impulsive behavior, 20th International Symposium on Mathematical Theory of Networks and Systems, July 9-13, 2012, Melbourne, Australia.**
- 69) Dimitris N. Varsamis, Paris A. Mastorocostas, Apostolos K. Papakonstantinou and Nicholas P. Karampetakis, 2012, A parallel searching algorithm for the inseting procedure in Matlab Parallel Toolbox, Proceedings of the Federated Conference on Computer Science and Information Systems.**

Citation

- Sujata Khobragade, Mr. Avinash Dhole, Encroachment of power optimization in Parallel Systems using OpenMP, Discovery, 2015, 27(100), 99-102**
- 70) Varsamis, Dimitris and Nicholas P. Karampetakis, 2012, On a Special Case of the two-variable Newton Interpolation Polynomial, 2nd International Conference on Communications, Computing and**

Control Applications (CCCA'12), December 6-8, 2012, Marseilles, France.

Citation

Klaokanlaya Silacha and Tantatsanawong, Imputation of Medical Data Using Subspace Condition Order Degree Polynomials, J Inf Process Syst, Vol.10, No.3, pp.395~411, September 2014

- 71) **Gregoriadou Anastasia and Nicholas P. Karampetakis , 2012, Reachability and Controllability of Discrete Time Descriptor Systems, 2nd International Conference on Communications, Computing and Control Applications (CCCA'12), December 6-8, 2012, Marseilles, France.**
- 72) **Nicholas P. Karampetakis and Karamichalis Rallis, 2013, Discretization of Singular Systems and Error Estimation, 2013 International Conference on Control, Decision and Information Technologies (CoDIT'2013), May 6, 2013 - May 8, 2013, Hammamet, Tunisia.**
- 73) **A.I.G. Vardulakis, N. Karampetakis, E. Antoniou, and S. Vologiannidis, 2013, Notions of equivalence for linear multivariable systems, Proc. of the 21st Mediterranean Conference on Control and Automation (MED'13), June 2013, Chania, Crete, Greece.**
- 74) **Nicholas P. Karampetakis and Gregoriadou Anastasia, 2014, Error analysis for the discretization of singular systems, Proc. of the 22nd Mediterranean Conference on Control and Automation (MED'14), June 2014, Palermo, Italy.**
- 75) **Lazaros Moysis and Nicholas P. Karampetakis, 2014, Modeling of discrete time auto-regressive systems with given forward and backward behavior, Proc. of the 22nd Mediterranean Conference on Control and Automation (MED'14), June 2014, Palermo, Italy.**
- 76) **Lazaros Moysis and Nicholas P. Karampetakis, 2014, On the Modeling of Discrete Time Auto-Regressive Representations, 2nd International Conference on Control, Decision and Information Technologies (CoDIT'14), Metz, France, November 3-5, 2014.**
- 77) **Nicholas P. Karampetakis and Sophia D. Karathanasi, 2015, On the spectral analysis of nonregular polynomial matrices with applications, 14th European Control Conference, Linz, Austria, July 15-17, 2015.**

Published Conference abstracts

- 1) Ziogou C., Voutetakis S., Papadopoulou S., Seferlis P. and N. Karampetakis, "Maximum Power Targeting for the PEM Fuel Cell using an NMPC Framework", International Workshop on Assessment and Future Directions of Nonlinear Model Predictive Control, NMPC'08, Pavia, Italy, 2008.

Papers presented in Greek Conferences

1. N. P. Karampetakis, 2007, From Algebraic Calculations to Computer Algebra Systems, 1st Mathematical Week, Greek Mathematical Society, March 5-9, 2007, Porto Palace Hotel, Thessaloniki.
2. N. P. Karampetakis, 2008, From the Calculus of Variations to the Optimal Control Theory, 2nd Mathematical Week, Greek Mathematical Society, March 3-7, 2008, Porto Palace Hotel, Thessaloniki.

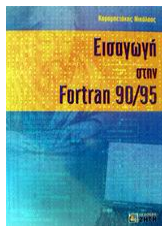
Teaching Notes (in Greek)

- 1) A. I. Vardulakis and N. P. Karampetakis, 1993, Teaching notes in Mathematical Systems Theory I, Department of Mathematics, Aristotle University of Thessaloniki.
<http://eclass.auth.gr/modules/document/file.php/MATH102/%CE%9C%CE%91%CE%98%CE%97%CE%9C%CE%91%CE%A4%CE%99%CE%9A%CE%97%20%CE%98%CE%95%CE%A9%CE%A1%CE%99%CE%91%20%CE%A3%CE%A5%CE%A3%CE%A4%CE%97%CE%9C%CE%91%CE%A4%CE%A9%CE%9D%20%CE%99.pdf> .
- 2) A. I. Vardulakis and N. P. Karampetakis, 1993, Teaching notes in Mathematical Systems Theory II, Department of Mathematics, Aristotle University of Thessaloniki.
<http://eclass.auth.gr/modules/document/file.php/MATH102/%CE%9C%CE%91%CE%98%CE%97%CE%9C%CE%91%CE%A4%CE%99%CE%9A%CE%97%20%CE%98%CE%95%CE%A9%CE%A1%CE%99%CE%91%20%CE%A3%CE%A5%CE%A3%CE%A4%CE%97%CE%9C%CE%91%CE%A4%CE%A9%CE%9D%20%CE%99%CE%99.pdf> .
- 3) N. P. Karampetakis, 1997, Introduction to MS-DOS and BASIC, Technological Institute of Kavala.
<http://eclass.auth.gr/modules/document/file.php/MATH104/%CE%A3%CE%B7%CE%BC%CE%B5%CE%B9%CF%8E%CF%83%CE%B5%CE%B9%CF%82%20%CF%84%CE%BF%CF%85%20%CE%9C>

[%CE%B1%CE%B8%CE%AE%CE%BC%CE%B1%CF%84%CE%BF%CF%82/3-DOS-BASIC.pdf](#) .

- 4) N. P. Karampetakis, Chapters in N. Π. Καραμπετάκης, Creating chapters in the accompanying educational material of the compulsory Module code PL12 “Mathematics for Informatics” of the undergraduate program course “Computer Science” of the Greek Open University (Volume 1. Linear Algebra – Chapter 9. Eigenvalues – Eigenvectors (pages 58) – Chapter 10. Diagonalization of Matrices (pages 62) – Introduction to Mathematica (pages 37) – Applications of Mathematica to Linear Algebra (pages 101) – Applications of Mathematica to Calculus of one variable functions (pages 67))
<http://edy.eap.gr/jspui/browse?type=author&order=ASC&rpp=20&value=%CE%9A%CE%B1%CF%81%CE%B1%CE%BC%CF%80%CE%B5%CF%84%CE%AC%CE%BA%CE%B7%CF%82%2C+%CE%9D..>
- 5) **Developing instructional electronic material for the following undergraduate and postgraduate courses** : Introduction to programming (Fortran 90/95/2003) (undergraduate), Symbolic Programming Languages (undergraduate), Mathematics for Informatics (Greek Open University), Computer Aided Control Systems Design (postgraduate), Optimal Control Theory (postgraduate),
<http://eclass.auth.gr/modules/auth/opencourses.php?fc=18>.

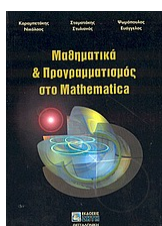
Books



N. P. Karampetakis, 2002, Introduction to Fortran 90/95, Ziti ed. (in the Greek language).



N. P. Karampetakis, 2011, Introduction to Fortran 90/95/2003, Second Edition, Ziti ed. (in the Greek language).



N. P. Karampetakis, S. Stamatakis, and E. Psomopoulos, 2004, Mathematics and Programming in Mathematica, Ziti ed. (in the Greek language).



N. P. Karampetakis, 2009, Optimal Control Systems, Ziti ed. (in the Greek language).