

## PERSONAL INFORMATION

## Cristian OARA



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Sex M | Date of birth 01/03/1968 | Nationality Romanian

## WORK EXPERIENCE

- 2004-present **Professor at the Department of Automatic Control and Systems Engineering**  
Faculty of Automatic Control and Computers, Politehnica University of Bucharest (UPB), Bucharest, Romania
- Director (Head) of the Department of Automatic Control and Systems Engineering (from 2012)
  - Director of the Master Program “Advances Techniques in Signals and Systems”, UPB (from 2009)
  - Professor (from 2004), PhD advisor (from 2009)
  - Head of the Group and Laboratory “Dynamical Systems and Optimization” (from 2001)
  - Research Assistant, Assistant Professor, Lecturer, Associate Professor at Faculty of Automatic Control and Computers, UPB (1992-2004)
- [Academic sector](#)
- 1999-2000 **Researcher at Department of Engineering,**  
Cambridge University, Cambridge, England, United Kingdom
- [Academic sector](#)
- 1997-1999 **Alexander von Humboldt Fellow**  
Institute of Robotics and System Dynamics, German Aerospace Center (DLR), Oberpfaffenhofen-Wessling, Germany  
Research Associate at Department of Engineering
- [Academic sector](#)
- 1995-1997 **Postdoctoral Fellow and NATO Research Fellow**  
Center of Systems Engineering and Applied Mechanics (CESAME), Universite Catholique de Louvain, Louvain-la-Neuve, Belgium
- [Academic sector](#)

## EDUCATION AND TRAINING

- 1993-1995 **PhD Thesis** EQF level 8  
Faculty of Automatic Control and Computers, University Polytechnica of Bucharest
- Doctor Engineer Diploma, thesis: “Generalized Riccati Theory: A Popov function Approach (Extended Hamiltonian and Symplectic Pencils, the Signature Condition, Singular Perturbations and Applications)”
- 1987-1992 **Engineer Diploma** EQF level 6  
Faculty of Automatic Control and Computers, University Polytechnica of Bucharest
- 1993-1995 **High School** EQF level 5  
Lyceum “Mihai Viteazul”, Bucharest, Romania (mathematics and physics), Diploma of “Bacalaureat”

## PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	B1	B1	B1	B1	B1
German	B1	B1	B1	B1	B1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
Common European Framework of Reference for Languages

Communication skills ▪ good communication skills gained through experience as Head of Department

Organisational / managerial skills ▪ leadership (currently responsible for an academic team of 30 people)

Computer skills ▪ good command of academic related tools (Matlab, Latex environments)

Driving licence ▪ B

## ADDITIONAL INFORMATION



- Publications
- Conferences
- Fellowships and awards
- Commission of trust
- Invited positions
- Research grants

**Publications:**

37 papers published in leading ISI journals (among which 30 in Q1 according to IF/AIS, e.g., Automatica, IEEE Transactions on Automatic Control, SIAM Journal on Control and Optimization, International Journal of Control, Linear Algebra and Its Applications, Systems & Control Letters, International Journal of Robust and Nonlinear Control, see list of publications);

Sum of IF of all publications > 100;

The number of citations (h-index) WoS/Google Scholar: 355/1144 (11/16).

12 books/book chapters published in leading International/National Publishing Houses (Wiley, Springer, Diderot, Ed. Academiei);

**Conferences:**

60 papers in Proceedings of leading international conferences (among which 35 class A), e.g., Conference on Decision and Control (1995, 1996, 1997, 1998, 2009, 2011, 2013, 2015), American Control Conference (1997, 2000, 2001, 2002, 2010, 2011, 2013, 2015), European Control Conference (1995, 1997, 1999, 2009, 2014), Mathematical Theory of Network and Systems (1996, 1998, 2000, 2004, 2008, 2010, 2012), various IFAC Conferences (1995, 1998, 2009), etc.

**Fellowships and Awards:**

- Postdoctoral Fellowship of Université Catholique de Louvain (UCL) (1995-1996), Faculty of Applied Sciences, Belgium;
- NATO Research Fellowship of the Belgian Government (1996-1997), Center for Systems Engineering and Applied Mechanics, UCL, Belgium;
- Alexander von Humboldt Fellowship, Deutsche Forschungsgemeinschaft für Luft und Raumfahrt, Germany (1997-1999);
- "In Hoc Signo Vinces" Award of CNCSIS (2000);

**Commission of trust:**

- Associate editor IEEE Transactions on Automatic Control (1999-2002) - the worldwide leading journal in control systems;
- Associate editor International Journal of Control, Taylor & Francis (2001-2007);
- Editorial board for monographs John Wiley & Sons (2000-2015);
- Expert evaluator for EC/ Romanian/EU & USA R&D Programmes (since 2000);
- CNATDCU General Assembly, vicepresident of Engineering Panel (2010-2012, 2016-);
- ANCS, Member of the General Consultative Committee;
- Romanian representative EUCA European Control Association (2013-2020);
- IFAC Committee on Robust Control (since 2005).

**Invited professor:**

- University of Groningen (The Netherlands);
- KU Leuven, University of Namur (Belgium);
- University of Oxford (UK);
- National University of Kyoto (Japan);
- University of Newcastle (Australia);
- National University of Singapore (Singapore);
- University of Illinois at Urbana Champaign, University of California at Los Angeles, University of Maryland, University of California at Davis (USA);
- SUPELEC, Université de Lorraine (France).

**Research grants:**

- Principal Investigator in 5 research grants with World Bank, AvH Foundation, CNCSIS and CNCS, total value > 500 000 Euro, participant in other 7;



14/04/2020

# Cristian Oară

## List of Publications 04/2020

### ISI Journal Papers (Q1: 30, Q2: 3)<sup>1</sup>

- [P1] C. Oară, Proper deflating subspaces: Properties, algorithms and applications, *Numerical Algorithms*, Vol. 7, 1994, pp. 355–373. [Q1/IF-AM];
- [P2] V. Ionescu, C. Oară, A discrete-time reduced order controller for robust stabilization of plant in the normalized coprime-factor plant description, *IMA Journal of Mathematical Control and Informatics*, Vol. 11, 1994, pp. 231–252.
- [P3] V. Ionescu, C. Oară, Generalized discrete-time Riccati theory, *SIAM Journal on Control and Optimization*, Vol. 34(2), 1996, pp. 601–619. [Q1/AIS-A&CS]
- [P4] V. Ionescu, C. Oară, The class of suboptimal and optimal solutions to the discrete Nehari problem: characterization and computation, *International Journal of Control*, Vol 64(3), 1996, pp. 483-509. [Q2/AIS-A&CS]
- [P5] V. Ionescu, C. Oară, Generalized continuous-time Riccati theory, *Linear Algebra and Its Application*, Vol. 232, 1996, pp. 111-131. [Q1/IF-M]
- [P6] V. Ionescu, C. Oară, The 4 block Nehari problem: A Popov function approach, *IMA Journal of Mathematical Control and Informatics*, Vol. 13(2), 1996, pp. 173-194.
- [P7] C. Oară, Stabilizing solution to the reverse discrete-time Riccati equation, *Linear Algebra and Its Applications*, Vol. 246(1-3), 1996, pp. 113-130. [Q1/IF-M]
- [P8] V. Ionescu, C. Oară, Spectral and inner-outer factorizations for discrete-time systems: the general case, *IEEE Transactions on Automatic Control*, Vol.41(12), 1996, pp. 840–845. [Q1/AIS-A&CS]
- [P9] V. Ionescu, C. Oară, The time-varying discrete 4 block Nehari problem: A Popov–Yakubovich type approach, *Integral Equations and Operator Theory*, Vol. 26, 1996, pp. 404–431. [Q2/IF-M]
- [P10] C. Oară, P. Van Dooren, An improved algorithm for the computation of structural invariants of a system pencil and related geometric aspects, *Systems & Control Letters*, Vol. 30, 1997, pp. 39–48. [Q1/AIS-A&CS]
- [P11] V. Ionescu, C. Oară, M. Weiss, General matrix pencil techniques for the solution of algebraic Riccati equations: A unified approach, *IEEE Transactions on Automatic Control*, Vol 42(8), 1997, pp. 1085–1097. [Q1/AIS-A&CS]
- [P12] V. Ionescu, C. Oară, The extended generalized distance problem in discrete-time, *International Journal of Nonlinear and Robust Control*, Vol. 8, 1998, pp. 523–534. [Q1/AIS-A&CS]
- [P13] C. Oară, A. Varga, Minimal degree coprime factorization of rational matrices, *SIAM Journal on Matrix Analysis and Applications*, Vol. 21(1), 2000, pp. 245–278. [Q1/AIS-AM]
- [P14] C. Oară, A. Varga, Computation of general inner-outer and spectral factorizations, *IEEE Transactions on Automatic Control*, Vol. 45(12), 2000, pp. 2307-2325. [Q1/AIS-A&CS]
- [P15] C. Oară, On computing normalized coprime factorizations of general rational matrices, *IEEE Transactions on Automatic Control*, Vol 46(2), 2001, pp. 286–290. [Q1/AIS-A&CS]
- [P16] V. Ionescu, C. Oară, The four block Adamjan–Arov–Krein problem for discrete-time systems, to appear in *Linear Algebra and Its Applications*, Vol. 328(1-3), 2001, pp. 95-119. [Q1/IF-M]
- [P17] C. Oară, R.Stefan, From factorizations to Riccati Equations and Back, *Revue Roumain des Sciences Techniques. Serie Electrotechnique et Energetique*, Vol 48(4), 2003, pp. 457–487.
- [P18] C. Oară, Constructive solutions to spectral and innerouter factorizations with respect to the disk, *Automatica*, full paper, Vol. 41(11), 2005, pp. 1855-1866. [Q1/AIS-A&CS]
- [P19] C. Oară, S. Sabau, Squaring down descriptor systems: Constructive solutions and numerical algorithms, *IEEE Transactions on Automatic Control*, Vol.54(4), 2009, pp. 866-870. [Q1/AIS-A&CS]
- [P20] C. Oară, S. Sabau, All doubly coprime factorizations of a general rational matrix, *Automatica*, Vol. 45(8), 2009, pp. 1960-1964. [Q1/AIS-A&CS]
- [P21] C. Oară, R. Andrei, Zero cancellation for general rational matrix functions, *Linear Algebra and its Applications*, Vol. 431(11), 2009, pp. 2000-2023. [Q1/IF-M]
- [P22] C. Oară, S. Sabau, Minimal indices cancellation and rank revealing factorizations for rational matrix functions, *Linear Algebra and its Applications*, Vol. 431(10), 2009, pp. 1785-1814. [Q1/IF-M]

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<sup>1</sup>Q1 (Q2) are the first 25% (50%) journals in decreasing order of Average Influence Score (AIS) or Impact Factor (IF), in fundamental areas of Automation and Control Systems (A&CS), Mathematics (M), or Applied Mathematics (AM).

- [P23] M. Jungers, C. Oară, H. Abou-Kandil, R. Ștefan, General matrix pencil techniques for solving non-symmetric algebraic Riccati equations, *SIAM Journal on Matrix Analysis and Applications*, Vol. 31(3), 2009, pp. 1257–1278. [Q1/AIS-AM]
- [P24] C. Oară, C. Flutur, Nonminimal spectral factorization of a descriptor system, *Journal of Control Engineering and Applied Informatics*, Vol. 12(2), 2010, pp. 10–16.
- [P25] C. Oară, S. Sabău, Parametrization of  $\Omega$ -stabilizing controllers and closed-loop transfer matrices of a singular system, *Systems and Control Letters*, Vol. 60(2), 2011, pp. 87–92. [Q1/AIS-A&CS]
- [P26] C. Oară, R. Andrei, Computation of the general  $(J, J')$ -lossless factorization, *IEEE Transactions on Automatic Control*, Vol. 56(3), 2011, pp. 710–717. [Q1/AIS-A&CS]
- [P27] M. Jungers, C. Oară, Non-symmetric algebraic Riccati theory: a matrix pencil approach, *European Journal of Control*, Vol. 18(1), 2012, pp. 74–81. [Q2/AIS-A&CS]
- [P28] C. Oară, R. Andrei, Numerical solution to a descriptor discrete-time algebraic Riccati equation, *Systems and Control Letters*, Vol. 62(2), 2013, pp. 201–208. [Q1/AIS-A&CS]
- [P29] C. Oară, R. Andrei,  $J$ -factorizations of a general discrete-time system, *Automatica*, Vol. 49(7), 2013, pp. 2221–2228. [Q1/AIS-A&CS]
- [P30] F. Tudor, C. Oară,  $H^2$  optimal control for generalized discrete-time systems, *Automatica*, Vol. 50(5), 2014, pp. 1526–1530. [Q1/AIS-A&CS]
- [P31] F. Tudor, C. Oară,  $H^\infty$  control problem for discrete-time algebraic dynamical systems, *SIAM Journal on Control and Optimization*, Vol. 53(5), 2015, pp. 3171–3194. [Q1/AIS-A&CS]
- [P32] C. Oară, C. Flutur, M. Jungers, Squaring down with zeros cancellation in generalized systems, *Systems and Control Letters*, Vol. 92, 2016, pp. 5–12. [Q1/AIS-A&CS]
- [P33] S. Sabău, C. Oară, S. Warnick, A. Jadbabaie, Optimal distributed control for platooning via sparse coprime factorizations, *IEEE Transactions on Automatic Control*, full paper, Vol. 62 (1), 2017, pp. 305–320, [Q1/AIS-A&CS].
- [P34] S. Tudor, C. Oară, Robust stabilization of robust discrete-time systems, *IFAC Automatica*, Vol. 94, 2018, pp. 334–340, [Q1/AIS-A&CS].
- [P35] M. Jungers, C. Oară, Solving parameterized nonsymmetric algebraic Riccati equations: A matrix sign function approach, *Control Engineering and Applied Informatics*, Vol. 21 (2), 2019, pp. 3–10.
- [P36] S. Sabău, C. Oară, A. Jadbabaie, Network realization functions for optimal distributed control, *IEEE Transactions on Automatic Control*, accepted 2020 [Q1/AIS-A&CS].
- [P37] F. Tudor, A. Sperilă, C. Oară, Robust stabilization of differential-algebraic systems, *International Journal on Robust and Nonlinear Control*, provisionally accepted 2020, [Q1/AIS-A&CS]

## Books and Chapters

- [B1] B. Jora, B. Dumitrescu, C. Oară, *Numerical Methods*, University Polytechnica Bucharest Press, Bucharest, 1995, 280 pages.
- [B2] C. Oară, *Generalized Riccati Theory. A Popov Function Approach: Extended Hamiltonian and Symplectic Pencils, the Signature Condition, Singular Perturbations and Applications*, Staff Press, Bucharest, 1995, (ISBN 0973 96796 9), 164 pages.
- [B3] V. Ionescu, C. Oară, Ch. 4: Techniques de type faisceaux matriciels, in *Comande Optimale*, Ed. Jean-Michel Dion, Dumitru Popescu, Diderot Editeur, Arts et Sciences, Paris, ISBN: 2 84134 017 1, 1996, pag. 111–160.
- [B4] V. Ionescu, C. Oară, Ch. 5: Probleme de Nehari en discret, in *Comande optimale*, Ed. Jean-Michel Dion, Dumitru Popescu, Diderot Editeur, Arts et Sciences, Paris, ISBN: 2 84134 017 1, 1996, pag. 161–200.
- [B5] V. Ionescu, C. Oară, and M. Weiss, *Generalized Riccati Theory and Robust Control*, John Wiley & Sons, New York, (ISBN 0471 97147 2), 1999, 410 pages.
- [B6] C. Oară, D. Popescu, Ch. 7: Analysis of linear systems, in *Automatica*, Vol. I, (Ed: I. Dumitrache), Editura Academiei Romane, Bucuresti, Romania, ISBN: 978-973-1883-4, 2009, pp. 299–350.
- [B7] C. Oară, Ch. 10: Design of state feedback law, in *Automatica*, Vol. I, (Ed: I. Dumitrache), Editura Academiei Romane, Bucuresti, Romania, ISBN: 978-973-1883-4, 2009, pp. 471–502.
- [B8] C. Oară, M. Olteanu, R. Ștefan, Ch 11: Mathematical theory of systems, in *Enciclopedie Matematica*, (Ed: M. Iosifescu, O. Stanasila, D. Ștefanoiu), Ed. AGIR, Bucuresti, Romania, ISBN: 9789737202888, 2010, pp. 690–766.
- [B9] C. Oară, Ch. 20: Analysis of MIMO systems, in *Automatica*, Vol. II, (Ed: I. Dumitrache, T. Dragomir), Editura Academiei Romane, Bucuresti, Romania, ISBN: 978-973-27-2298-5, 2013, pp. 115–161.

- [B10] C. Oară, Ch. 21: Synthesis of MIMO systems, in *Automatica*, Vol. II, (Ed: I. Dumitrache, T. Dragomir), Editura Academiei Romane, Bucuresti, Romania, ISBN: 978-973-27-2298-5, 2013, pp. 162–217.
- [B11] C. Oară, Ch. 22: Robust systems, in *Automatica*, Vol. II, (Ed: I. Dumitrache, T. Dragomir), Editura Academiei Romane, Bucuresti, Romania, ISBN: 978-973-27-2298-5, 2013, pp. 218–318.
- [B12] F. Stoican, C. Oară, M. Hovd, RPI approximations of the mRPI set characterizing linear dynamics with zonotopic disturbances, in *Developments in Model-Based Optimization and Control* (ed. S. Oлару, A. Grancharova, F. Lobo Pereira), Lecture Notes in Control and Information Science, Springer, 2016, ISBN 978-3-319-26687-9, pp. 361–377.

## Papers in Proceedings of ISI International Conferences (A: 35)<sup>2</sup>

- [C1] C. Oară, On computing the stabilizing solution to the constrained algebraic Riccati equation, *Proc. 9th International Conference on Control Systems and Structure*, CSCS 93, Bucharest, 25–28 May 1993, pp.23–29.
- [C2] V. Ionescu, C. Oară, Discrete singular Riccati theory and nonstandard factorizations, *Proc. 1st Asian Control Conference*, Tokyo, July 27–30, 1994, pp. 384–390.
- [C3] V. Ionescu, C. Oară, Singular perturbation techniques for order reduction of robust controllers, *Proc. IFAC/IFORS/ IMACS Symposium LSS'95 Large Scale Systems and Applications*, UK, July 11–13, 1995, pp. 105–110.
- [C4] V. Ionescu, C. Oară, Robust stabilization of normalized coprime factor plant description: the discrete case, *Proc. IFAC Conference System Structure and Control*, Nantes France 5-7 July 1995, pp. 404–409.
- [C5] V. Ionescu, C. Oară, Discrete-time extended Nehari problem: the general case, *Proc. 3<sup>rd</sup> International Congress on Industrial and Applied Mathematics, ICIAM 95*, July 3-7, 1995, published in *ICIAM/GAMM 95, Applied Stochastic and Optimization*, ed. K. Marti, ZAMM, Vol. 76 (3), 1996, pp. 463–464.
- [C6]\* V. Ionescu, C. Oară, A unified matrix pencil approach for solving nonstandard Riccati equation, *Proc. 3<sup>rd</sup> European Control Conference*, ECC 95, Roma 5–8 September, 1995, pp. 2968–2973.
- [C7]\* V. Ionescu, C. Oară, All suboptimal and optimal Hankel Norm approximation of discrete-time systems, *Proc. 3<sup>rd</sup> European Control Conference*, ECC95, Roma 5–8 September, 1995, pp. 977–982.
- [C8]\* C. Oară, On computing the stabilizing solution to the reverse discrete-time Riccati equation, (invited paper), *Proc. of 3<sup>rd</sup> European Control Conference*, Roma 5–8 September, 1995, pp. 1781–1786.
- [C9]\* C. Oară, V. Ionescu, Singular Riccati theory via extended symplectic pencils, (SIAM invited paper), *Proc. 34th Conference on Decision and Control*, CDC95, New Orleans, 13–15 December, 1995, pp. 1881–1886.
- [C10] C. Oară, The signature condition: a necessary and sufficient frequency domain existence condition for the stabilizing solution to the algebraic Riccati equation, *Proc. 15th Benelux Meeting on Systems and Control*, March 6–8, 1996, Mierlo, The Netherlands, pp. 229–230.
- [C11]\* C. Oară, P. Van Dooren, An algorithm for computing the staircase form of a system pencil and related geometric aspects, *Proc. Conference on Decision and Control*, CDC 96, December 11–13, 1996, Kobe, Japan, pp. 4244–4249.
- [C12]\* V. Ionescu, C. Oară, Existence conditions for the time-varying discrete Riccati equation, *Proc. Conference on Decision and Control*, CDC 96, December 11–13, 1996, Kobe, Japan, pp. 2263–2264.
- [C13]\* V. Ionescu, C. Oară, An extension of Redheffer's theorem for time-varying systems, *Proc. American Control Conference*, ACC 97, June 4–6, Albuquerque, USA June 1997 (Session TP14-1).
- [C14]\* V. Ionescu, C. Oară, Robust controller for multiplicative uncertainty: the time-varying discrete case, *Proc. American Control Conference ACC 97*, Albuquerque, USA, June 4–6, 1997 (Session TP14-2).
- [C15]\* V. Ionescu, C. Oară, Indefinite sign Riccati theory for descriptor systems, *Proc. 4th European Control Conference*, ECC 97, July, 1–4, 1997, Bruxelles, Belgium (Paper 755, Session FR ML1).
- [C16]\* C. Oară, P. Van Dooren, Stability radius of discrete time-varying systems of descriptor form, *Proc. 36th Conference on Decision and Control*, CDC 97, San Diego, California, USA, December 10–12, 1997, pp. 4541–4543 (Session FP 02-2).
- [C17] C. Oară, Minimal factorization of rational matrices: the general case (invited paper), *Proc. Mathematical Theory of Network and Systems*, MTNS 98, (ed. A. Beghi, L. Finesso, G. Picci), pp. 661–664.
- [C18] V. Ionescu, C. Oară, The extended Adamjan–Arov–Krein approximation problem for discrete time-dependent systems, *Proc. Mathematical Theory of Network and Systems*, MTNS 1998 (ed. A. Beghi, L. Finesso, G. Picci), pp. 645–648.

<sup>2</sup>The conferences in class A are indicated by \*

- [C19] C. Oară, V. Ionescu, The bounded real lemma for time-dependent systems: An LMI approach, *Proc. 3rd Portuguese Control Conference*, Controlo 98, September 9–11, Coimbra, Portugal, pp. 63–67.
- [C20] C. Oară, V. Ionescu, Strong stabilizing solution to the continuous and discrete-time Riccati equation, *Proc. 3rd Portuguese Control Conference*, Controlo 98, September 9–11, Coimbra, Portugal, pp. 757–761.
- [C21]\* C. Oară, A. Varga, Least order coprime factorizations of rational matrices: The canonical case, *Proc. Conference on Decision and Control*, CDC 98, December 1998, Tampa, Florida, Session TP04-2.
- [C22]\* C. Oară, A. Varga, Solutions to the general inner-outer and spectral factorization problems, *Proc. Conference on Decision and Control*, CDC 98, December 1998, Tampa, Florida, Session TP04-7.
- [C23]\* C. Oară, V. Ionescu, The extended Hankel norm approximation problem for discrete-time descriptor systems, *Proc. Conference on Decision and Control*, CDC 98, December 1998, Tampa, Florida, Session WM04-2.
- [C24]\* C. Oară, A. Varga, The general inner-outer factorization problem for discrete-time systems, *Proc. 5th European Control Conference*, ECC99, Karlsruhe, Germany, August–September 1999, Session DM-2.
- [C25]\* C. Oară, A. Varga, Coprime factorization with  $J$  all-pass denominator: the noncanonical case, *Proc. 5th European Control Conference*, ECC 99, Karlsruhe, Germany, August–September 1999, Session BM-9.
- [C26]\* V. Ionescu, C. Oară, Mixed Riccati equations and contractiveness, *Proc. 5th European Control Conference*, ECC 99, Karlsruhe, Germany, August–September 1999, Session AM-9.
- [C27] C. Oară, A QR factorization of a rational matrix : the class of solutions and applications in systems theory, *Proc. Mathematical Theory of Network and Systems*, MTNS 2000, Perpignan, 19–23 June, 2000.
- [C28]\* C. Oară, On computing normalized coprime factorization of arbitrary rational matrices, *Proc. American Control Conference*, ACC 2000, Chicago, 28–30 June, 2000, Session TA 18-1.
- [C29]\* C. Oară, Results on Contractive Descriptor Systems, *Proc. American Control Conference*, ACC 2001, June, 2001.
- [C30]\* C. Oară, General Spectral Factorization with Respect to the Disk, *Proc. American Control Conference*, ACC 2001, June, 2001.
- [C31]\* C. Oară, R. Stefan, P. Van Dooren, Maximizing the Stability Radius: A LMI Approach, *Proc. American Control Conference*, ACC 2001, June, 2001.
- [C32]\* V. Ionescu, C. Oară, Singular H-infty Control in Terms of Nonstandard J-Spectral Factorizations, *Proc. European Control Conference*, ECC2001, August 2001.
- [C33]\* C. Oară, Singular H-infty Control in Terms of Nonstandard J-Spectral Factorizations, *Proc. American Control Conference*, ACC2002, May 2002, Anchorage, Alaska.
- [C34] C. Oară, R. Stefan, Generalized Riccati theory: from factorizations to equations and back, part I, *Proc. Mathematical Theory of Network and Systems*, Leuven, Belgium, July 5-9, 2004.
- [C35] C. Oară, R. Stefan, Generalized Riccati theory: from factorizations to equations and back, part II, *Proc. Mathematical Theory of Network and Systems*, Leuven, Belgium, July 5-9, 2004.
- [C36] C. Oară, R. Stefan, Constructive solutions to general (J,J)lossless factorization with respect to the disk, *Proc. Mathematical Theory of Network and Systems*, Leuven, Belgium, July 5-9, 2004.
- [C37] C. Oară, Zero cancellation: constructive solutions and numerical algorithms, *Proc. Mathematical Theory of Network and Systems*, Blacksburg, Virginia, 28 July-1 August, 2008.
- [C38] C. Oară, S. Sabau, Squaring down descriptor systems, *Proc. Mathematical Theory of Network and Systems*, Blacksburg, Virginia, 28 July-1 August, 2008.
- [C39] M. Jungers, H. Abou-Kandil, C. Oară, R. Stefan, Open loop Stackelberg strategy for linear quadratic games via matrix pencil approach, *IFAC Workshop on Control Applications of Optimisation*, 6-8 May, 2009, Agora, Finland.
- [C40]\* M. Jungers, H. Abou-Kandil, C. Oară, R. Stefan, Open loop Nash strategy for linear quadratic games via matrix pencil approach, *Proc. European Control Conference*, 2009, Budapest, august 2009.
- [C41]\* M. Jungers, C. Oară, Non-symmetric algebraic Riccati theory: A matrix pencil approach, *Conference on Decision and Control*, Shanghai, China 16-18 Decembrie, 2009.
- [C42]\* C. Oară, S. Sabau, The class of doubly coprime factorizations, Omega-stabilizing controllers, and achievable closed-loop transfer functions of a general descriptor system, *Proc. American Control Conference*, 2010, Baltimore, SUA.
- [C43]\* C. Oară, R. Andrei, Constructive solutions to J-lossless conjugation, (J,J')-spectral and (J,J')-lossless factorizations of a general system, *Proc. American Control Conference*, 2010, Baltimore, SUA.
- [C44] C. Oară, R. Andrei, The descriptor discretetime Riccati equation: numerical solution and applications, *Proc. Mathematical Theory of Networks and Systems*, Melbourne, Australia, July 9-13, 2012.

- [C45]\* C. Oară, R. Marinica, The general (J,J) lossless factorization for descriptor discrete-time systems, Proc. Conference on Decision and Control, Maui, Hawaii, December 10-13, 2012.
- [C46]\* S. Sabau, C. Oară, S. Warnick, A. Jadbabaie, Structured coprime factorizations description of linear timeinvariant networks, *Proc. Conference on Decision and Control*, Florence, Italy, 10-13 December 2013.
- [C47]\* F. Tudor, C. Oară, H<sub>2</sub> optimal output feedback control for a general discrete-time system, *European Control Conference*, June 24-27, 2014.
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