

Curriculum Vitae of Franco Blanchini

August 2018

1 Generalities

- Franco Blanchini was born in Legnano (MI), Italy, on 29 December 1959.
- Address: Dipartimento di Matematica e Informatica, Università degli Studi di Udine, Via Delle Scienze 206, 33100, Udine, Italy.
- Email: Blanchini@uniud.it, Tel: int + 39 0432 558466; Fax: int + 39 0432 558499.
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- Married.
- Senior Member IEEE.

1.1 Education

- 1984: Master Degree in Electrical Engineering achieved on 4 April 1984 at the University of Trieste, Italy.
- 1984: Italian Engineering Professional Title.

1.2 Current position

- Professor of Automatic Control at the Faculty of Engineering of the University of Udine (since 2000/November).
- Member of the Department of Mathematics and Computer Science of the University of Udine.
- Director of the Dynamic System Laboratory (since 2005/November).

1.3 Previous positions

- 1986/July: Lecturer of Automatic Control at the Faculty of Science of the University of Udine.
- 1992/November: Associate Professor of Automatic Control at the Faculty of Engineering of the University of Udine.
- October 2009–October 2012: Dean of the Department of Mathematics and Computer Science.

2 Scientific activity

2.1 Expertize fields

- Numerical methods for analysis and synthesis of linear systems.
- Generalized state–space (descriptor) linear systems.
- Robust control.
- Lyapunov methods.
- \mathcal{L}^1 optimal control theory.
- Control of systems with input and output constraints.
- High–gain adaptive control.
- Theory and application of invariant sets.
- Linear Parameter-Varying systems.
- Switching systems.

2.2 Main application areas of interest

- Control of mechanical systems.
- Control of communication networks.
- Control of production–distribution systems.
- Systems Biology.

3 Editorial and organization activity

3.1 Conference program committee

- 1997: Member of the Program Committee of the 36th IEEE Conference on Decision and Control, S. Diego, California.
- 1999: Member of the Program Committee of the 38th IEEE Conference on Decision and Control, Phoenix, Arizona.
- 2001: Member of the Program Committee of the 40th IEEE Conference on Decision and Control, Orlando, Florida.
- 2003: Member of the International program committee of the 4th IFAC Symposium on Robust Control Design, Milan, Italy 25-27 June 2003.
- 2003: Member of the International program committee of First Multidisciplinary International Symposium on Positive Systems: Theory and Application University of Rome "La Sapienza", Roma, Italy, 28-30 August 2003.
- 2003: Member of the Program Committee of the 42th IEEE Conference on Decision and Control, Maui, Hawaii, USA.
- 2004: Member of the Committee CDC Best Student Paper Award.

- 2005: Member of the Committee CDC Best Student Paper Award.
- 2006: Member of the Program Committee of the IFAC Workshop, Analysis and design of Hybrid Systems, Alghero Sardegna, Italia.
- 2009 Member of the Program Committee for the conference, ROCOND 09, Haifa, Israel, 2009.

3.2 Chair and Co-chair positions

- 2002: Program Chair of “Uncertain Dynamical Systems”, workshop of the IFAC Technical Committee on Robust Control, July 18, 19 and 20, 2002, Cascais, Portugal.
- 2005: Vice Program Chair for the Joint Conference on Decision and Control—European Control Conference, Seville, Spain, December 2005.
- 2008 Vice Program Chairman for Tutorial Sessions, CDC-08, Cancun, Mexico, December, 2008.
- 2012 Program Chair for the conference, ROCOND 2012, Aalborg, Denmark, June 2012.
- Vice Program Chair for the Conference on Decision and Control, Florence, Italy, December 2013.

3.3 Reviewing activity

- Reviewer for the following journals (with more than 200 reviewed articles): International Journal of Control, IEEE Transactions on Automatic Control, IEEE Transactions on Circuit and Systems, Automatica, IEE Proceedings Part D, Dynamics and Control, Journal of Optimization Theory and Applications, Systems and Control Letters, SIAM Journal on Optimization, Electronic Letters, IEEE Transactions on Robotics and Automation. Reviewer for the following international conferences: Conference on Decision and Control, American Control Conference and IFAC World Congress.
- Outstanding Reviewer for Automatica, 2006.
- Reviewer of the book “Control of linear systems with regulation and input constraints, by A. Saberi, A. Stoorvogel and P. Sannuti”, Springer, London”.
- Reviewer of the book “Actuator Saturation Control, by V. Kapila and K.M. Grigoriadis, Marcel Dekker (with S. Miani).

3.4 Editorial activity

- July 1996–June 2006: Associate Editor of Automatica (with more than 150 handled papers).
- January 2012–December 2016: Associate Editor of IEEE Transactions on Automatic Control.
- From January 2017: Associate Editor of Automatica.
- 2017-2018: Senior Editor for IEEE Control Systems Letters.

3.5 Research projects

- 1992: Manager the CNR scientific project “Robust Computer-Based Control”;
- 1993: Manager of the CNR scientific project “Optimization and management of production systems” — 93.03334.CT11;
- 1994: Local manager of the CNR scientific project “Control of resources production and distribution” — 94.00543.CT11;
- 1996: Local manager of the CNR scientific project “Dynamic optimization of production–distribution networks” — 96.03865.CT11;
- 1997: Local manager of the CNR scientific project “Dynamic optimization of production–distribution networks” — 97.00379.CT11;
- 1998: Local manager of the CNR scientific project “Dynamic optimization of production–distribution networks” — 98.00558.CT11.
- 1999: CNR/MOSA scientific project Italy–Israel (Italian team manager) “Stochastic optimal control of production–distribution Systems: Theory, On-and Off-Line Applications”.
- 2001: Local manager of the MURST scientific project “Gain-scheduling and robust control for time-varying uncertain systems”, within the national project “Robust control of uncertain systems”.
- 2005: National manager of the MURST scientific project “Robust and Optimal Techniques for High Performance Control”.
- 2007 National manager of the MURST scientific project “Advanced control techniques for innovative applications”.
- 2007 Contract with Mangiarotti company Sedegliano (UD), Italy, “Automation of cutting and welding processes”.
- 2009 Contract with Rosaplast company Spilimbergo (UD), Italy, “Optimal scheduling for pressing painting machines”

4 International research activity

4.1 International cooperations

- September 1990: Visiting professor at the College of Mechanical Engineering, Berkeley (invited by Prof G. Leitmann);
- June 1992: Visiting professor at University of Central Florida, Orlando, (invited by Prof. Sznaier);
- June 1995: Visiting professor at Pennsylvania State University, State College, (invited by Prof. Sznaier);
- September 1996: Visiting professor at School of Mathematics, Bath, United Kingdom (invited by Prof. Ryan);
- January 2000: Visiting professor at the University of Tel-Aviv (research supported by CNR/MOSA) (invited by Prof. E. Khmelnitsky).
- January 2006: Visiting professor at Kyoto University (invited by Prof. T. Sugie)
- September 2013: Visiting professor at Riverside University, CA, USA (invited by Prof. E. Franco)

4.2 Invited presentations

1. F. Blanchini, “Ultimate Boundedness Control for Discrete-Time Uncertain Systems via Set Induced Lyapunov Functions“ *Workshop of the IFAC Working Group*, Cappel, Switzerland, September 1991.
2. F. Blanchini, “Non-quadratic Lyapunov functions for robust control“ *Workshop of the IFAC Working Group*, Cairns, Australia, July 1993.
3. F. Blanchini, S. Miani, “A universal class of smooth functions for robust control”, *Workshop of the IFAC Working Group*, Napa, California, July 1996.
4. M. Sznaier, F. Blanchini, “Multiobjective robust control: linear versus nonlinear controllers”, *Workshop of the IFAC Working Group*, Napa, California, July 1996.
5. F. Blanchini and S. Miani, “Dynamic programming methods in robust analysis and synthesis: old ideas and new recent developments”, *Workshop on Robustness in Identification and Control*, Certosa di Pontignano (SI), Italy, 30 July – 2 August 1998.
6. F. Blanchini, “The gain scheduling and the robust state feedback stabilization problems”, *Workshop of the IFAC Working Group*, Hong-Kong, July 1999.
7. F. Blanchini, S. Miani, R. Pesenti, F. Rinaldi, W. Ukovich, “Robust control of production distribution systems”, *Workshop on “Perspective in Robust Control”*, Newcastle, Australia, 6–8 Dec. 2000.
8. F. Blanchini and S. Miani, “Stabilization of LPV systems: state feedback, state estimation and duality” , *Workshop of the IFAC Working Group*, Cascais, July 18, 19 and 20, 2002, Cascais, Portugal.
9. F. Blanchini and F.A. Pellegrino, “Relatively optimal control” , *Seminar at ETH*, Zurich, 2004.
10. F. Blanchini and S. Miani, “Relatively optimal control” , *Workshop of the IFAC Working Group*, June 29, 2005, Delft, The Netherlands.
11. F. Blanchini, “Controlling systems via settheoretic methods”, *Seminar at ETH*, Zurich, 2007.
12. F. Blanchini, “Switching and Switched systems”, *Seminar at Marrakech, Maroch, Faculty of Science*, 2008.
13. F. Blanchini, S. Miani and F. Mesquine, “Separation principles, and controller realization for linear switching and LPV systems”, *Seminar at Hamilton Institute, Maynooth, Ireland*, October 2009
14. F. Blanchini and S. Miani, “Parameterization of all stabilizing controllers for LPV systems”, *Workshop of the IFAC Working Group*, August, 2011, Udine, Italy.
15. F. Blanchini, “Lyapunov and Invariance methods in control”, Stuttgart, Germany, April 2012.

4.3 Plenary lectures

- Speaker (with A. Stoorvogel) for the plenary lecture “Minicourse on Saturation in Control”, 19th Benelux Meeting on Systems and Control, Mierlo, The Netherlands, March 1–3, 2000.
- Speaker for the plenary lecture “Lyapunov and invariance methods in control design”, IFAC Joint Conference, Grenoble, February 2013.
- Speaker for the plenary lecture “Set invariance and Lyapunov methods”, 32nd Benelux Meeting on Systems and Control, Houffalize, Belgium, March 2013.

5 Awards

- 2001: recipient of the *20022001 ASME Oil & Gas Application Committee Best Paper Award* as a co-author of the article F. Blanchini and P. Giannattasio, P. Pinamonti and D. Micheli, "Experimental Evaluation of a High-Gain Control for Compressor Surge Suppression", *ASME Journal on Turbomachinery*, Vol. 124, no.1, pp.27-35, 2002.
- 2002: recipient of the *2002 IFAC prize survey paper award* as author of the article F. Blanchini, "Set invariance in control", *Automatica*, no. 11, pp.1747-1768, Nov. 1999.
- 2017: recipient of the *IFAC Prize Nonlinear Analysis and Hybrid Systems Best Paper Award* for the paper A switching system approach to dynamic race modeling, *Nonlinear Analysis and Hybrid Systems*, vol. 21, no. 8, pp. 37-48, 2016.
- 2017: recipient of the *IFAC High Impact Paper Award* for the paper F. Blanchini, "Set invariance in control", *Automatica*, no. 11, pp.1747-1768, Nov. 1999.

6 Teaching activity

6.1 University Courses

- 1985-86: Professor of Numerical Analysis at the Faculty of Scienze of the University of Udine.
- 1986-91: Lecturer of System Theory at the Faculty of Scienze of the University of Udine.
- 1992-today: Professor of System Theory and Automatic Control Faculty of Engineering of the University of Udine.

6.2 Scientific Laboratory

- Director and founder of the Laboratory of Dynamic Systems of the University of Udine (<http://www.dimi.uniud.it/~franco/SysDynLab.html>)

6.3 Courses and lectures

- July-September 1999: Professional Course at Danieli Company, Buttrio (UD) on "Analysis and Synthesis via State-Space Methods".
- July 1999: Course on "Positively invariant sets and their applications in the control of constrained uncertain systems", Summer School on Modern control theory, Università di Roma Tre, 7-19, June 1999.
- July 2000: Lecture on "Robust control for time-varying systems", School on Robust Control, (Scuola di Dottorato CIRA), July 17-21 2000, Bertinoro, Italy.
- Lecture on: "Robust Stability and Stabilization via Lyapunov Methods", Advanced School on Identification and Robust Control, Siena, 8-9 Novembre 2002.
- March 2003: Lecture on "Lyapunov Methods in Robust Control", Università di Palermo, Palermo, Italy.
- July 2003: Lecture on "Controlled invariant sets", School on Hybrid Systems, July 17-19, (Scuola di Dottorato CIRA), 2003 Bertinoro, Italy.
- October 16-17, and November 13-14, 2003: Course on "Lyapunov methods in robustness", Politecnico di Milano, Milano, Italy.

- April 2006, course for PhD Students “Lyapunov methods in robustness”, Grenoble, 2006.
- April 2009, course for PhD Students “Lyapunov methods in robustness”, Grenoble, 2006.
- July 2009, Organizer of the school (with Patrizio Colaneri), on “Robust and constrained control”, July 13-18 , (Scuola di Dottorato CIRA), 2009, Bertinoro, Italy.

Bibliography

International Journals

- 116 F. Blanchini, G. Giordano, "BDC-decomposition for global influence analysis", *IEEE Control Systems Letters*, to appear.
- 115 G. Giordano, D. Bauso, F. Blanchini, A robust saturated strategy for n-player Prisoner's dilemma, *SIAM Journal on Control and Optimization*, to appear.
- 114 F. Blanchini C. Cuba Samaniego, E. Franco and G. Giordano, Homogeneous Time Constants Promote Oscillations in Negative Feedback Loops, *ACS Synthetic Biology*, accepted, available on-line.
- 113 G. Belgioioso F. Blanchini, " On the convergence of discrete-time linear systems: A linear time-varying Mann iteration converges iff its operator is strictly pseudocontractive", *IEEE Control Systems Letters*, to appear.
- 112 S. Miani, M. Zilletti, P. Gardonio, F. Blanchini, P. Colaneri, Switching and sweeping vibration absorbers: theory and experimental validation, *Automatica*, 93, no. 12, pp. 290-301, 2018.
- 111 F. Blanchini C. Cuba Samaniego, E. Franco and G. Giordano, Aggregates of Monotonic Step Response systems: a structural classification, *IEEE Transactions on Control of Network System - Special Issue on Approaches to Control Biological and Biologically Inspired Networks*, available on-line.
- 110 F. Blanchini, D. Casagrande, G. Giordano, U.Viario, A bounded complementary sensitivity function ensures topology-independent stability of homogeneous dynamical networks, *IEEE Transactions on Automatic Control*, 63, no. 4, pp. 1140-1146, 2018.
- 109 David Palma, Pier Luca Montessoro , Giulia Giordano, and Franco Blanchini, Biometric Palmprint Verification: a Dynamical System Approach, *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, to appear
- 108 F. Blanchini, G. Giordano, "Polyhedral Lyapunov functions structurally ensure global asymptotic stability of dynamical networks iff the Jacobian is non-singular", *Automatica*, 86, no. 12, pp. 183-191, 2017.
- 107 G. Giordano, F. Blanchini, "Flow-inducing networks", *IEEE Control Systems Letters*, Vol. 1, no.1, July 2017.
- 106 F. Blanchini, D. Casagrande, G. Giordano, S. Miani, S. Oлару, V. Reppa, "Active fault isolation: a duality-based approach via convex programming", *SIAM Journal on Control and Optimization*, 55(3), 16191640. 2017.
- 105 C. Cuba Samaniego, G. Giordano, F. Blanchini and E. Franco, "Stability analysis of an artificial biomolecular oscillator with non-cooperative regulatory interactions," *Journal of Biological Dynamics*, Vol. 11, no. 1, 2017.
- 104 F. Blanchini, G. Fenu, G. Giordano, F. A. Pellegrino, "Model-free plant tuning", *IEEE Transactions on Automatic Control*, Vol. 62, no.6, June 2017.
- 103 F. Blanchini, G. Fenu, G. Giordano, F. A. Pellegrino, "A convex programming approach to the inverse kinematics problem for manipulators under constraints", *European Journal of Control*, Vol. 33, Pages 11-23, 2017.

- 102** G. Giordano, F. Blanchini, E. Franco V. Mardanlou, P.L. Montessoro, "The Smallest Eigenvalue of the Generalized Laplacian Matrix, with Application to Network-Decentralized Estimation for Homogeneous Systems", *IEEE Transactions on Network Science and Engineering*, Vol. 3, no. 4, pp. 312–324, Oct.–Dec. 2016.
- 101** M.T. Laraba, S. Oлару, S.I. Niculescum F. Blanchini, D. Casagrande, G. Giordano, S. Miani, "Guide on Set Invariance for Delay Difference Equations", *Annual Reviews in Control*, vol. 41, 2016, pp 1323.
- 100** F. Blanchini, D. Casagrande, G. Giordano, U.Viario, "Robust Constrained Model Predictive Control of Fast Electromechanical Systems", *Journal of the Franklin Institute*, vol. 353, no. 9, pp. 20872103, June 2016.
- 99** P. Colaneri, R. Middleton, F. Blanchini, "Optimal control of a class of positive Markovian bilinear systems", *Nonlinear Analysis: Hybrid Systems*, vol. 21, Aug. 2016, pp. 155170 .
- J98** C. Cuba Samaniego, G. Giordano, J. Kim, F. Blanchini, E. Franco, "Molecular titration promotes oscillations and bistability in minimal network models with monomeric regulators", *ACS Synthetic Biology*, vol. 5, no. 4, pp. 321-333, 2016
- J97** F. Blanchini, D. Casagrande, G. Giordano, U.Viario, "A switched system approach to dynamic race modelling", *Nonlinear Analysis: Hybrid Systems*, vol. 21, no. 8, pp. 37-48, 2016.
- J96** F. Blanchini, D. Casagrande, G. Giordano, P.L. Montessoro, "A robust decentralized control for channel sharing communication", *IEEE Transactions on Control of Network Systems*, 4(2), pp. 336-346, 2017.
- J95** F. Blanchini, P. Colaneri, M. E. Valcher, "Switched Linear Positive Systems", *Foundations and Trends in Systems and Control*, vol. 2, no. 2, pp 101-273. 2016.
- J94** F. Blanchini, E. Franco, G. Giordano, V. Mardanlou, P.L. Montessoro, "Compartmental flow control: decentralization, robustness and optimality", *Automatica*, vol. 64, no.2, 1828 , February 2016
- J93** G. Giordano, C. Cuba Samaniego, E. Franco, F. Blanchini, "Computing the structural influence matrix for biological systems", *Journal of Mathematical Biology*, June 2016, Volume 72, Issue 7, pp 19271958, June 2016,
- J92** F. Blanchini, P. Colaneri, Y. Fujisaki, S. Miani, F.A. Pellegrino, A Youla–Kucera Parameterization Approach to Output Feedback Relatively Optimal Control, *Systems and Control Letters*, vol. 81, pp. 14-23, 2015
- J91** F. Blanchini, E. Franco, G. Giordano, A structural classification of candidate oscillatory and multistationary biochemical systems, *Bulletin of Mathematical Biology*, Vol. 76, no. 10, pp. 2542-2569, 2014.
- J90** F. Blanchini, D. Casagrande, S. Miani and U. Viario, Stable LPV Realization of the Smith Predictor, *International Journal of System Science*, *International Journal of System Science*, vol. 47, no. 10, 2016
- J89** F. Blanchini, E. Franco, G. Giordano, "Network-Decentralized Control Strategies for Stabilization, *IEEE Transactions on Automatic Control*, Vol. 60, no. 2, 491-496, 2015.
- J88** F. Blanchini, D. Casagrande, S. Miani and U. Viario, "Robust LPV control of induction motor, *International Journal of Robust and Nonlinear Control*, *International Journal of Robust and Nonlinear Control*, vol. 25, no. 12, 1783-1800, 2015.
- J87** F. Blanchini, G. Giordano, Piecewise-linear Lyapunov functions for structural stability of biochemical networks, *Automatica*, Vol. 50, no. 10, pp. 2482-2494, 2014.

- J86** Colaneri, R. Middleton, Z. Chen, D. Caporale, F. Blanchini, "Convexity of the cost functional in an optimal control problem for a class of positive switched systems, *Automatica*, Volume 40. no. 4, 1227-1234, 2014.
- J85** S. Grammatico, F. Blanchini and A. Caiti, "Control-sharing and merging control Lyapunov functions", *IEEE Transactions on Automatic Control*, Vol. 59, no. 107 - 119, January, 2014
- J84** F. Blanchini, D. Casagrande, P. Colaneri, P. Gardonio, S. Miani, "Switching gains for semi-active damping via nonconvex Lyapunov functions", *IEEE Transactions on Control Systems Technology*, Volume. 22, no. 2, March 2014.
- J83** R. Gubiani, G. Pergher, S.R.S. Cividino, R. Lombardo, F. Blanchini, "A Wii-controlled safety device for electric chainsaws", *Journal of Agricultural Engineering*, volume XLIV, pp.690-693, 2013.
- J82** D. Bauso, F. Blanchini, L. Giarré, R. Pesenti. The linear saturated decentralized strategy for constrained flow control is asymptotically optimal, *Automatica*, Volume 49, Issue 7, July 2013, Pages 2206-2212.
- J81** D. Casagrande, P.L. Montessoro and F. Blanchini, "Fair and optimal dynamic admission control of elastic flows ", *Computer Networks*, Volume 57, Issue 5, 7 April 2013, Pages 1277-1288.
- J80** E. Franco and F. Blanchini, "Structural properties of the MAPK pathway topologies in PC12 cells", *Journal of Mathematical Biology*, Published on-line 25 October 2012.
- J79** F. Blanchini, D. Casagrande, P. Gardonio, S. Miani "Constant and switching gains in semiactive damping of vibrating structures", *International Journal of Control*, Volume 85, Issue 12, 2012, 1886-1897.
- J78** Franco Blanchini, Patrizio Colaneri, Maria Elena Valcher, Co-positive Lyapunov functions for the stabilization of positive switched systems, *IEEE Transactions on Automatic Control*, Volume 57, Issue: 12, Dec. 2012.
- J77** F. Blanchini, S. Miani, F. A. Pellegrino, Disturbance-driven Model Predictive Control by means of Youla-Kucera parameter switching with an application to drainage canal control, *International Journal of Robust and Nonlinear Control*, Special Issue to Commemorate the Work of Professor David W. Clarke, Volume 22, Issue 12, pages 1362-1375, August 2012.
- J76** S. Elliot, P. Gardonio, D. Casagrande, S. Miani, F. Blanchini, Plate with decentralised velocity feedback loops: power absorption and kinetic energy considerations, *Journal of Sound and Vibration*, Vol. 331, no. 8, pp. 1722-1741, 2012.
- J75** F. Blanchini, D. De Caneva, P. L. Montessoro, D. Pierattoni, "Control-based p-persistent Adaptive Communication Protocol", *Transactions on Autonomous and Adaptive Systems*, Vol 22, no. 8, July 2012.
- J74** F. Blanchini and M. Sznajder, A Convex Optimization Approach to Synthesizing Bounded Complexity ℓ^∞ Filters, *IEEE Transactions on Automatic Control*, Vol. 57, no. 1, pp. 216-221, 2012.
- J73** F. Blanchini and E. Franco, Structurally robust biological networks, *BMC Systems Biology* 2011, 5:74 (17 May 2011).
- J72** P. Bettini, F. Blanchini, R. Cavazzana, G. Marchiori, S. Miani, A. Soppelsa, Adaptive plasma current control in RFX-mod, *Fusion Engineering and Design*, 2011.03.049.
- J71** E. Hernandez-Vargas, P. Colaneri, R. Middleton, F. Blanchini, "Discrete-time control for switched positive systems with application to mitigating viral escape, *International Journal on Robust and Nonlinear Control*, in print.

- J70** F. Blanchini, D. Casagrande and S. Miani, “Modal and transition dwell time computation in switching systems: a set-theoretic approach”, *Automatica*, in print. *Automatica*, Volume 46, no. 9, pp. 1477-1482, September 2010.
- J69** F. Blanchini, D. Casagrande, S. Miani and U. Viaro, “table LPV realization of parametric transfer functions and its application to gain-scheduling control design”, *IEEE Transactions on Automatic Control*, Vol. 55, no. 10, pp. 2271–2281, October 2010.
- J68** P. Angeli, F. Barazza and F. Blanchini “Natural frequency intervals for vibrating systems with polytopic uncertainty”, *Journal of Sound and Vibration*, Vol. 329, pp. 944-959, 2010.
- J67** T. Hu and F. Blanchini “Non-conservative matrix inequality conditions for stability/stabilizability of linear differential inclusions”, *Automatica*, Vol. 46, no.4, pp. 190-196, 2010.
- J66** D. Bauso, F. Blanchini and R. Pesenti, “Optimization of Long-Run Average-Flow Cost in Networks with time-varying unknown demand”, *IEEE Transactions on Automatic Control*, Vol. 55, no. 1, pp. 20-31, 2010.
- 65** F. Blanchini, T. Parisini, F.A. Pellegrino and G. Pin, High-Gain Adaptive Control: a Derivative-Based Approach, *IEEE Transactions on Automatic Control*, Vol. 54, no. 9, pp. 2164-2169, September 2009.
- J64** D. Bauso, F. Blanchini and R. Pesenti, Average Flow Constraints and Stabilizability in Uncertain Production-Distribution Systems, *Journal of Optimization Theory and Applications*, Vol. 144, no.1, pp. 12-28, Jan. 2010.
- J63** F. Blanchini, S. Miani and F. Mesquine, “A separation principle for linear switching systems and parametrization of all stabilizing controllers”, *IEEE Transactions on Automatic Control*, March 2009, Vol. 54, no. 2, pp. 279-292, February 2009.
- J62** F. Blanchini and U. Viaro, “Switched control of fluid networks”, *IEEE Transactions of the Institute of Measurements and Control*, pp. 582–602, Vol. 32, no. 6, Dec. 2010.
- J61** A. Abramo, F. Blanchini, L. Geretti and C. Savorgnan, “A Mixed Convex/Non-Convex Distributed Localization Approach for the Deployment of Indoor Positioning Services”, *IEEE Transactions on Mobile Computing*, vol. 7, Issue 11, pp. 1325-1337. Digital Object Identifier 10.1109/TMC.2008.59.
- J60** F. Blanchini, S. Miani, F. A. Pellegrino and B. van Arkel, “Enhancing controller performance for robot positioning in a constrained environment”, *IEEE Transactions on Control Systems Technology*, Vol. 16, n. 5, pp. 1066-1074, 2008.
- J59** F. Blanchini and C. Savorgnan, “Stabilizability of switched linear systems does not imply the existence of convex Lyapunov functions”, *Automatica*, April 2008, Vol. 44, no. 4, pp. 1166-1170, April 2008.
- J58** F. Blanchini, P. Colaneri, F. A. Pellegrino, “Simultaneous performance achievement via compensator blending”, *Automatica*, January 2008, Vol. 44, no. 1, pp. 1-14, January 2008.
- J57** F. Blanchini, S. Miani and C. Savorgnan, “Stability results for linear parameter varying and switching systems”, *Automatica*, October 2007, Vol. 42, no. 10, 2007.
- J56** F. Blanchini, F. A. Pellegrino, “Relatively optimal control a piecewise affine solution”, *SIAM Journal on Control and Optimization*, Vol. 42, no. 2, pp. 585-603, 2007.
- J55** F. Blanchini, S. Miani, M. Tomasini, L. Tubiana, U. Viaro, M. Zigliotto, “A minimum-time control strategy for torque tracking in permanent magnet ac motor drives”, *Automatica*, Vol. 43, no. 3, pp. 505–512, 2007.

- J54** G. Arnulfi, F. Blanchini, P. Giannattasio, D. Micheli, P. Pinamonti, “An extensive study on the control of centrifugal compressor surge”, *Proceedings of the Institute of Mechanical Engineering*, Part A, Journal of Power and Energy, Vol. 220, pp. 289 - 304, 2006.
- J53** D. Bauso, F. Blanchini and R. Pesenti, ”Robust control strategies for multi–inventory systems with average flow constraints”, *Automatica*, Special Issue on Optimal Control Application to Management Science, pp. 1255–12–66, August 2006.
- J52** F. Blanchini, F. A. Pellegrino, “Relatively optimal control with characteristic polynomial assignment and output feedback”, *IEEE Transactions on Automatic Control*, Vol AC-51, no. 2, pp. 183–191, Feb. 2006.
- J51** F. Blanchini, A. Lepschy, S. Miani, and U. Viaro, ”Characterization of PID and Lead/Lag compensators satisfying given \mathcal{H}_∞ specifications”, *IEEE Transactions on Automatic Control*, Vol. 49, no. 5, pp. 736–740, 2004.
- J50** F. Blanchini, S. Miani, F. Rinaldi, ”Guaranteed cost control for multi–inventory systems with uncertain demand”, *Automatica*, Vol 40, no. 2., pp. 213–224, 2004.
- J49** F. Blanchini, F. A. Pellegrino ”Relatively optimal control and its linear implementation”, *IEEE Transactions on Automatic Control*, Vol. 48, no. 12, pp. 2151–2162, December 2003.
- J48** F. Blanchini, F. A. Pellegrino, L. Visentini, ”Control of manipulators in a constrained workspace by means of linked invariant set”, *International Journal on Robust and Nonlinear Control*, Vol 14, pp. 1185–1505, 2004.
- J47** F. Blanchini, S. Miani, F. A. Pellegrino, ”Suboptimal receding horizon control for continuous–time systems”, *IEEE Transactions on Automatic Control*, Vol. 48, no. 6, pp. 1081–1086, June 2003.
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