

# Curriculum Vitae di **Daniele Casagrande**

## **Informazioni personali**

Posizione: Ricercatore confermato  
SSD: ING-INF/04, Automatica  
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## **Breve biografia**

Sono nato a Belluno il 23 di aprile del 1973.

Il 15 aprile 1999 ho conseguito la laurea in Ingegneria Elettronica presso l'Università degli Studi di Trieste.

Dall'ottobre 1999 al giugno 2000 sono stato assistente di ricerca presso il Dipartimento di Energetica dell'Università degli Studi di Trieste.

Nel 2001 ho usufruito di una borsa di studio presso l'Istituto Nazionale di Oceanografia e Geofisica Sperimentale di Trieste.

Nel 2002 ho conseguito il diploma in "Modeling and Simulation of Complex Realities" dall'ICTP (International Centre for Theoretical Physics) di Trieste.

Sempre nel 2002, ho vinto una borsa di studio triennale per la frequentazione del corso di dottorato in Ingegneria dell'Informazione presso il Dipartimento di Elettrotecnica, Elettronica ed Informatica dell'Università degli Studi di Trieste.

Nel 2006 ho conseguito il dottorato in Ingegneria dell'Informazione.

Sempre nel 2006, tra luglio e settembre, sono stato assistente di ricerca presso l'Istituto di Cibernetica dell'Università di Tecnologia di Tallinn (Estonia).

Dal settembre 2006 all'agosto 2007 sono stato assegnista di ricerca presso il Dipartimento di Elettrotecnica, Elettronica ed Informatica dell'Università degli Studi di Trieste.

Dal dicembre 2007 all'ottobre 2008 sono stato *research associate* presso il Dipartimento di Ingegneria Elettrica ed Elettronica dell'Imperial College London.

Dal 2008 sono ricercatore presso il Dipartimento di Ingegneria Elettrica, Gestionale e Meccanica dell'Università degli Studi di Udine.

Nel 2009, 2010 e 2012 sono stato *academic visitor* presso il Dipartimento di Ingegneria Elettrica ed Elettronica dell'Imperial College London.

Il 18 luglio 2017 ho conseguito la laurea in Matematica presso l'Università degli Studi di Trieste.

Il 5 aprile 2018 ho conseguito l'abilitazione scientifica nazionale per il ruolo di professore di II fascia nel settore 09/G1 (Automatica).

Il 6 giugno 2023 ho conseguito l'abilitazione scientifica nazionale per il ruolo di professore di I fascia nel settore 09/G1 (Automatica).

### **Attività didattica in italiano**

Anno accademico 2006-2007: professore a contratto di *Fondamenti di Automatica* (Facoltà di Ingegneria dell'Università degli Studi di Trieste), *Informatica Applicata* (Facoltà di Medicina e Chirurgia dell'Università degli Studi di Trieste) e *Sistemi di Elaborazione dell'Informazione* (Facoltà di Medicina e Chirurgia dell'Università degli Studi di Trieste).

2007-2008: professore a contratto di *Controllo in Tempo Reale* (Facoltà di Ingegneria dell'Università degli Studi di Udine) e di *Informatica Applicata* (Facoltà di Medicina e Chirurgia dell'Università degli Studi di Trieste).

2008-2009: professore aggregato di *Controllo in Tempo Reale* e di *Controlli Automatici* (Facoltà di Ingegneria dell'Università degli Studi di Udine).

Dal 2009-2010 al 2011-2012: professore aggregato di *Controlli Automatici* (Facoltà di Ingegneria dell'Università degli Studi di Udine).

Dal 2012-2013 al 2014-2015: professore aggregato di *Teoria dell'Ottimizzazione* (Università degli Studi di Udine).

Dal 2015-2016 al 2022-2023: professore aggregato di *Ottimizzazione* (Università degli Studi di Udine).

Dal 2018-2019 al 2022-2023: professore aggregato di *Controlli Automatici 2* (Università degli Studi di Udine).

### **Attività didattica in inglese**

2009-2010: professore a contratto in *Discrete-time Systems and Computer Control* presso l'Imperial College London.

### **Seminari**

11 settembre 2003, *Problematiche di modellistica e controllo in un laminatoio a caldo per prodotti "lunghi"*, conferenza CIRA (Centro Interuniversitario di Ricerca in Automatica), Modena.

17 settembre 2004, *Controllo stabilizzante a commutazione per un integratore di Brockett*, conferenza CIRA, Villasimius.

6 gennaio 2005, *Stabilizability of non-holonomic systems by means of switching control laws*, Imperial College London.

8 settembre 2005, *Un controllo ibrido stabilizzante per il sistema "ball and plate"*, conferenza CIRA, Tropea.

18 settembre 2006, *Stabilization of the Equilibrium of Non-Holonomic Systems by Means of Switching Control Laws*, Institute of Cybernetics, Tallinn University of Technology, Tallinn (Estonia).

22 settembre 2006, *Switching control laws and stabilizability of non-holonomic systems*, 5th Junior European Meeting in Control and Information Technology, Tallinn (Estonia).

30 maggio 2007, *Switching control laws and stabilizability of nonlinear systems*, Workshop on Control, Optimization and Stability of Non-linear Systems: Geometric and Analytic Methods, SISSA, Trieste.

18 luglio 2007, *Leggi di controllo a commutazione e stabilizzabilità dell'equilibrio di sistemi non lineari*, Università di Roma "Tor Vergata".

16 maggio 2008, *A Hamiltonian-Based Algorithm for Measurements Clustering*, Workshop on Analysis and Design of Nonlinear Control Systems; a 4-day Control Event, Royal Society, Londra.

30 maggio 2011, *On the stabilizability of triangular systems not globally feedback linearizable*, workshop on Control and Topology, Grimacco.

11 ottobre 2013, *A Solution to the Problem of Transient Stability of Multimachine Power Systems*, Universidad de Chile, Santiago, Cile.

25 ottobre 2013, *Global Stabilization of Non-Globally Linearizable triangular systems*, Universidad de Chile, Santiago, Cile.

6 aprile 2016, *Ottimizzazione per l'Automazione*, Università di Udine.

## Brevetti

Apparecchiatura per il controllo di un impianto di condizionamento termico. Brevetto no. 1414805.

## Premi

**Paper prize award** per l'articolo "A switched system approach to dynamic race modelling", apparso nel 2016 sulla rivista *Nonlinear Analysis: Hybrid Systems* e giudicato il migliore articolo nel triennio 2014-2016.

**Start Cup FVG** per il progetto "Thermostat++" vincitore del premio nel 2013 nel settore "Industrial".

## Gestione di finanziamenti pubblici

*Fondo per le attività base di ricerca (FFABR) 2017*, assegnato individualmente sulla base dei soli titoli scientifici. Entità del finanziamento: 3000 euro.

## Responsabilità in convenzioni di ricerca

Responsabile scientifico per il Dipartimento Politecnico dell'Università di Udine dell'attività "Controlli Automatici per la laminazione dei prodotti metallici", svolta in collaborazione con Danieli Automation S.p.A. (Buttrio). Durata della convenzione: 15/12/2016-14/12/2018. Entità della convenzione: 10000 euro.

Responsabile scientifico per il Dipartimento Politecnico dell'Università di Udine dell'attività "Controlli Automatici per la laminazione dei prodotti metallici", svolta in collaborazione con Danieli Automation S.p.A. (Buttrio). Durata della convenzione: 22/02/2019-21/02/2021. Entità della convenzione: 12000 euro.

## Lista delle pubblicazioni

### Riviste:

- [R1] H.M.A. Abdalla, D. Boussaa, R. Sburlati, and D. Casagrande, "On the best volume fraction distribution for functionally graded cylinders, spheres and disks - A pseudo-spectral approach", *Composite Structures*, vol. 311, art. 116784, DOI: 10.1016/j.compstruct.2023.116784, 2023.

- [R2] D. Casagrande, D. Del Santo, and M. Prizzi, “Conditional stability up to the final time for backward-parabolic equations with Log-Lipschitz coefficients”, *Journal of Differential Equations*, vol. 338, pp. 518–550, DOI: 10.1016/j.jde.2022.08.011, 2022.
- [R3] D. Casagrande, W. W. Krajewski, and U. Viaro, “On the robust stability of commensurate fractional-order systems”, *Journal of the Franklin Institute*, vol. 359, no. 11, July 2022, pp. 5559–5574, DOI: 10.1016/j.franklin/2022.05.031.
- [R4] F. Rosset, D. Casagrande, B. Jafarpisheh, P.L. Montessoro, and F. Blanchini, “Optimal control approach to scheduling power supply facilities: theory and heuristics”, *IEEE Transactions on Control of Network Systems*, DOI: 10.1109/TCNS.2022.3165019, 2022.
- [R5] H.M.A. Abdalla and D. Casagrande, “Direct Transcription Approach to Dynamic Optimization Problems in Engineering”, *Journal of Applied and Computational Mechanics*, vol. 8, no. 2, pp. 605–616, DOI: 10.22055/JACM.2021.38081.3150, 2022.
- [R6] G.G. Marcu, H.M.A. Abdalla, and D. Casagrande, “Less is better: Coated spherical vessels over-perform their entirely graded counterparts”, *Composite Structures*, vol. 276, art. 114529, DOI: 10.1016/j.compstruct.2021.114529, 2021.
- [R7] H.M.A. Abdalla, D. Casagrande, F. De Bona, T. De Monte, M. Sortino, and G. Totis, “An optimized pressure vessel made of metal additive manufacturing: preliminary results”, *International Journal of Pressure Vessels and Piping*, vol. 192, art. 104434, DOI: 10.1016/j.ijpvp.2021.104434, 2021.
- [R8] H.M.A. Abdalla and D. Casagrande, “An intrinsic material tailoring approach for functionally graded axisymmetric hollow bodies under plane elasticity”, *Journal of Elasticity*, vol. 144, pp. 15–32, DOI: 10.1007/s10659-021-09822-y, 2021.
- [R9] D. Casagrande, W. Krajewski, and U. Viaro, “The Lepschy stability test and its application to fractional-order systems”, *Archives of Control Sciences*, vol. 31, no. 1, pp. 145–163, 2021.
- [R10] H.M.A. Abdalla and D. Casagrande, “Optimal area variation for maximum stiffness isostatic beams under parametric linear distributed loads”, *Mechanics Research Communications*, vol. 111, DOI: 10.1016/j.mechrescom.2021.103659, 2021.
- [R11] F. Blanchini, D. Casagrande, F. Fabiani, G. Giordano, D. Palma, and R. Pesenti, “A threshold mechanism ensures minimum-path flow in lightning discharges”, *Scientific Reports*, vol. 11, pp. 1–9, DOI: 10.1038/s41598-020-79463-z, 2021.
- [R12] D. Casagrande, W. Krajewski, and U. Viaro, “Elementary derivation of the Nyquist criterion for fractional-order feedback systems”, *Open Journal of Circuits and Systems*, DOI: 10.1109/OJCAS.2020.3040049, 2020.
- [R13] H.M.A. Abdalla, D. Casagrande, and F. De Bona, “A Dynamic Programming Setting for Functionally Graded Thick-Walled Cylinders”, *Materials*, vol. 13, DOI: 10.3390/ma13183988, 2020.
- [R14] H.M.A. Abdalla, J. Novak Srnec, and D. Casagrande, “Lower bound estimate for buckling in axially graded cantilever rods”, *Engineering Research Express*, vol. 2, no. 3, DOI: 10.1088/2631-8695/abb4f1, 2020.
- [R15] D. Casagrande, G. Cortella, W. Krajewski, S. Miani, and U. Viaro, “Investigation on the fractional nature of a refrigeration evaporator”, *Applied Thermal Engineering*, vol. 179, DOI: 10.1016/j.applthermaleng.2020.115626, October, 2020.

- [R16] H.M.A. Abdalla, D. Casagrande, and A. Strozzi, “A unified relaxed approach easing the practical application of a paradox in curved beams”, *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, vol. 234, no. 22, pp. 4535–4542, DOI: 10.1177/0954406220924693, 2020.
- [R17] H.M.A. Abdalla, D. Casagrande, and L. Moro, “Thermo-mechanical analysis and optimization of functionally graded rotating disks”, *Journal of Strain Analysis for Engineering Design*, vol. 55, no. 5–6, pp. 159–171, DOI: 10.1177/0309324720904793, 2020.
- [R18] H.M.A. Abdalla and D. Casagrande, “Analytical thickness distribution for minimum compliance axisymmetric vessels”, *Thin-Walled Structures*, vol. 149, DOI: 10.1016/j.tws.2020.106641, 2020.
- [R19] H.M.A. Abdalla and D. Casagrande, “On the longest reach problem in large deflection elastic rods”, *International Journal of Non-Linear Mechanics*, vol. 119, DOI: 10.1016/j.ijnonlinmec.2019.103310, 2020.
- [R20] H.M.A. Abdalla, D. Casagrande, and F. De Bona, “Thin-walled pressure vessels of minimum mass or maximum volume”, *Structural and Multidisciplinary Optimization*, vol. 61, no.1, pp. 111–121, DOI: 10.1007/s00158-019-02348-x, January 2020.
- [R21] D. Casagrande, D. Del Santo, and M. Prizzi, “Conditional stability for backwards parabolic operators with Osgood continuous coefficients”, *Annali di Matematica Pura ed Applicata*, vol. 199, pp. 479–508, DOI: 10.1007/s10231-019-00888-z, 2019.
- [R22] F. Blanchini, D. Casagrande, G. Giordano, F. Fabiani, and R. Pesenti, “Network-decentralised optimisation and control: an explicit saturated solution”, *Automatica*, vol. 103, pp. 379–389, DOI: 10.1016/j.automatica.2019.02.009, May, 2019.
- [R23] D. Casagrande and U. Viaro, “A Mathematical Approach to the Optimisation of Scientific Presentations”, *Atti dell’IVSLA. Classe di scienze matematiche, fisiche e naturali*, vol. 176, no. II-III, 2018.
- [R24] D. Casagrande, W. Krajewski and U. Viaro, “On the asymptotic accuracy of reduced-order models”, *International Journal of Control, Automation and Systems*, vol. 15, no. 5, pp. 2436-2442, DOI: 10.1007/s12555-015-0443-y, 2017.
- [R25] F. Blanchini, D. Casagrande, G. Giordano and U. Viaro, “A bounded complementary sensitivity function ensures topology-independent stability of homogeneous dynamical networks”, *IEEE Transactions on Automatic Control*, vol. 63, no. 4, pp. 1140-1146, DOI 10.1109/TAC.2017.2737818, April 2018.
- [R26] F. Blanchini, D. Casagrande, G. Giordano, S. Miani, S. Olaru and V. Reppa, “Active Fault Isolation: a Duality-Based Approach via Convex Programming”, *SIAM Journal of Control and Optimization*, vol. 55, no.3, pp.1619-1640, DOI: 10.1137/15M1046046, 2017.
- [R27] E. Borgatti, D. Casagrande, W. Krajewski and U. Viaro, “A Study of History from a Control-Theory Perspective”, *Foundations of Science*, vol. 23, no. 1, pp. 1-16, DOI:10.1007/s10699-016-9504-9, 2018.
- [R28] D. Casagrande, W. Krajewski and U. Viaro, “State-response decomposition for model reduction”, *Systems Science and Control Engineering*, vol. 4, no.1, pp. 379-385, DOI: 10.1080/21642583.2016.1252284, 2016.

- [R29] D. Casagrande, G. Fenu and F.A. Pellegrino, “Hamiltonian path planning in constrained workspace”, *European Journal of Control*, vol. 33, no. 1, pp. 1-10, DOI: 10.1016/j.ejcon.2016.09.002, 2017.
- [R30] D. Casagrande, W. Krajewski and U. Viaro, “L2-Optimal FOPDT Models of high-Order Transfer Functions”, *Asian Journal of Control*, vol. 19, no. 2, pp. 1-10, 2017, DOI: 10.1002/asjc.1354.
- [R31] M.T. Laraba, S. Olaru, S.I. Niculescu, F. Blanchini, G. Giordano, D. Casagrande and S. Miani, “Guide on set invariance for delay difference equations”, *Annual Reviews in Control*, vol. 41, pp. 13-23, DOI: 10.1016/j.arcontrol.2016.04.020, 2016.
- [R32] F. Blanchini, D. Casagrande, G. Giordano and U. Viaro, “Robust Constrained Model Predictive Control of Fast Electromechanical Systems”, *Journal of the Franklin Institute*, vol. 353, no. 9, pp. 2087-2103, DOI 10.1016/j.jfranklin.2016.03.009, 2016.
- [R33] F. Blanchini, D. Casagrande, G. Giordano and U. Viaro, “A switched system approach to dynamic race modelling”, *Nonlinear Analysis: Hybrid system*, vol. 21, pp. 37-48, DOI 10.1016/j.nahs.2015.12.006, 2016. **NAHS Paper Prize Award 2014-2016.**
- [R34] F. Blanchini, D. Casagrande, G. Giordano and P.L. Montessoro, “A robust decentralized control for channel sharing communication”, *IEEE Transactions on Control of Network Systems*, vol. 4, no. 2, pp. 336-346, DOI 10.1109/TCNS.2015.2502025, 2017.
- [R35] D. Langarica-Córdoba, R. Ortega and D. Casagrande, “Transient stabilization of multimachine power systems: Towards a global decentralized solution”, *European Journal of Control*, vol. 26, no. 11, pp. 44-52, DOI:10.1016/j.ejcon.2015.09.003, 2015.
- [R36] F. Blanchini, D. Casagrande, S. Miani and U. Viaro, “Stable LPV Realization of the Smith Predictor”, *International Journal of Systems Science*, vol. 47, no. 10, pp. 2393-2401, DOI: 10.1080/00207721.2014.998319, 2016.
- [R37] F. Blanchini, D. Casagrande, S. Miani and U. Viaro, “Robust LPV control of induction motors”, *International Journal of Robust and Nonlinear Control*, vol. 25, no. 12, pp. 1783-1800, DOI: 10.1002/mc.3174, August 2015.
- [R38] D. Casagrande, A. Astolfi, D. Langarica-Córdoba and R. Ortega, “Solution to the Multimachine Transient Stability Problem and Simulated Validation in Realistic Scenarios”, *IET Generation, Transmission and Distribution*, vol. 8, no. 8, pp. 1392-1405, 2014.
- [R39] F. Blanchini, P. Colaneri, D. Casagrande, P. Gardonio and S. Miani, “Switching gains for semiactive damping via nonconvex Lyapunov functions”, *IEEE Transactions on Control Systems Technology*, vol. 22, no.2, pp. 721-728, 2014.
- [R40] D. Casagrande, P.L. Montessoro and F. Blanchini, “Fair and optimal dynamic admission control of elastic flows”, *Computer Networks*, vol. 57, no. 5, pp. 1277-1288, 2013.
- [R41] F. Blanchini, D. Casagrande, P. Gardonio and S. Miani, “Constant and switching gains in semiactive damping of vibrating structures”, *International Journal of Control*, vol. 85, no. 12, pp. 1886-1897, 2012.
- [R42] D. Casagrande, M. Sassano and A. Astolfi, “Hamiltonian-based Clustering”, *IEEE Control Systems Magazine*, vol. 32, no. 4, pp. 74-91, 2012.

- [R43] P. Gardonio, S. Miani, F. Blanchini, D. Casagrande and S. J. Elliott, “Plates with decentralised velocity feedback loops. Power absorption and kinetic energy considerations”, *Journal of Sound and Vibration*, vol. 331, pp. 1722-1741, 2012.
- [R44] D. Casagrande, A. Astolfi and R. Ortega, “Asymptotic Stabilization of Passive Systems without Damping Injection: A Sampled Integral Technique”, *Automatica*, vol. 47, no. 2, pp. 262-271, 2011.
- [R45] D. Casagrande, Ü Kotta, M. Tonso e M. Wyrwas, “Transfer equivalence and realization of nonlinear input-output delta-differential equations on homogeneous time scales”, *IEEE Transactions on Automatic Control*, vol. 55, no. 11, pp. 2601-2606, 2010.
- [R46] F. Blanchini, D. Casagrande and S. Miani, “Modal and transition dwell time computation in switching systems: a set-theoretic approach”, *Automatica*, vol. 46, no. 9, pp. 1477-1482, 2010.
- [R47] F. Blanchini, D. Casagrande, S. Miani and U. Viaro, “Stable 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, 2010.
- [R48] D. Casagrande, A. Astolfi and T. Parisini, “Switching-Driving Lyapunov Function and the Stabilization of the Ball-and-Plate System”, *IEEE Transactions on Automatic Control*, vol. 54, no. 8, pp. 1881-1886, 2009.
- [R49] D. Casagrande, A. Astolfi and T. Parisini, “Global Asymptotic Stabilization of the Attitude and Angular Rates of an Underactuated Non-Symmetric Rigid Body”, *Automatica*, vol. 44, no. 7, pp. 1781-1789, 2008.

### Capitoli di libri:

- [L1] D. Casagrande, W. Krajewski and U. Viaro, “Fractional Order System Forced-response Decomposition and Its Application”, in *Mathematical Techniques of Fractional Order Systems*, A.T. Azar et al. (eds.), A volume in Advances in Nonlinear Dynamics and Chaos, Elsevier, DOI 10.1016/B978-0-12-813592-1.00003-9, 2018.
- [L2] F. Blanchini, D. Casagrande, G. Giordano and S. Miani, “On the LPV control design and its applications to some classes of dynamical systems”, in *Developments in Model-Based Optimization and Control*, S. Oлару et al. (eds.), Lecture Notes in Control and Information Science 464, Springer, DOI 10.1007/978-3-319-26687-9\_15, 2015.
- [L3] F. Blanchini, D. Casagrande, S. Miani e U. Viaro, “Parametric gain-scheduling control via LPV-stable realization”, in *Control of Linear Parameter Varying Systems with Applications*, J. Mohammadpour and C.W. Scherer (eds.), Springer, DOI 10.1007/978-1-4614-1833-7\_3, 2012.

### Atti di convegni e conferenze:

- [C1] F. Blanchini and D. Casagrande, “How to increase earnings by exploiting the Veblen effect”, 21st European Control Conference, 2023.
- [C2] D. Casagrande, G. Cortella, and S. Miani, “A novel technique for frost detection on a refrigerator evaporator”, 21st European Control Conference, 2023.

- [C3] D. Casagrande, H.M.A. Abdalla, and A. Astolfi, “A note on the realization of nonlinear ODEs and Pontryagin Maximum Principle”, 22th IFAC World Congress, 2023, to be presented.
- [C4] D. Casagrande, W. Krajewski and U. Viaro, “On polynomial root distribution with respect to a sector”, 25th International Conference on Methods and Models in Automation and Robotics, Miedzydroje, Poland, 2021.
- [C5] M. Cais, D. Casagrande, and H.M.A. Abdalla, “Peterson-like charts for nonhomogeneous rotating hollow disks with an eccentric hole”, 4th International Conference on Numerical Modelling in Engineering (NME 2021), Ghent, Belgium, 2021.
- [C6] H.M.A. Abdalla and D. Casagrande, “A genuine novel optimization approach for FGM axisymmetric bodies”, 23rd International Conference on Composite Structures, Porto, Portugal, 2020.
- [C7] F. Blanchini, D. Casagrande, G. Giordano, F. Fabiani, and R. Pesenti, “A network-decentralized strategy for shortest-path-flow routing”, 58th IEEE Conference on Decision and Control, Nice, France, 2019.
- [C8] D. Casagrande, W. Krajewski, and U. Viaro, “An Interpolation Approach to the Integer-Order Approximation of Fractional-Order Systems”, 24th International Conference on Methods and Models in Automation and Robotics, Miedzydroje, Poland, 2019.
- [C9] D. Casagrande, W. Krajewski, and U. Viaro, “Integer-Order Approximation of Fractional-Order Systems in the Loewner Framework”, 15th IFAC Symposium on Large Scale Complex Systems: Theory and Applications, Delft, The Netherlands, 2019.
- [C10] F. Blanchini, D. Casagrande, G. Giordano, and U. Viaro, “A switched model for mixed cooperative-competitive social dynamics”, European Control Conference, Naples, Italy, 2019.
- [C11] D. Casagrande, W. Krajewski and U. Viaro, “On Polynomial Zero Exclusion from an RHP Sector”, 23rd International Conference on Methods and Models in Automation and Robotics, Miedzydroje, Poland, 2018.
- [C12] D. Casagrande, W. Krajewski, S. Miani and U. Viaro, “Performance evaluation of an LQG controller of a robotic link with fractional dampers based on their integerorder approximation”, Mechanism Design for Robotics: Proceedings of the 4th IFToMM Symposium on Mechanism Design for Robotics (MEDER2018), Udine, Italy, 2018.
- [C13] F. Blanchini, D. Casagrande, G. Giordano, S. Miani, S. Olaru and V. Reppa, “Fault Isolation for Large Scale Discrete-Time Systems Based on Implicit Set Representation”, European Control Conference, Limassol, Cyprus, 2018.
- [C14] D. Casagrande, D. Del Santo and M. Prizzi, “Conditional Stability for parabolic equations with Osgood coefficients”, ISAAC (International Society for Analysis, its Applications and Computation) congress, Vaxjo, Sweden, 2017.
- [C15] F. Blanchini, D. Casagrande, W. Krajewski and U. Viaro, “A Method for the Order Reduction of Linear Switching Systems”, 22th International Conference on Methods and Models in Automation and Robotics, Miedzydroje, Poland, 2017.
- [C16] F. Blanchini, D. Casagrande, G. Giordano and U. Viaro, “Topology-independent robust stability of homogeneous dynamic networks”, IFAC world congress, 2017.



- [C17] D. Casagrande, W. Krajewski and U. Viaro, “Adapting State–Space Reduction Techniques to Match Steady–State Responses”, 21th International Conference on Methods and Models in Automation and Robotics, Miedzyzdroje, Poland, 2016.
- [C18] D. Casagrande, W. Krajewski and U. Viaro, “A Feedback Model of Evolutionary Adaptation”, 20th International Conference on Methods and Models in Automation and Robotics, Miedzyzdroje, Poland, 2015.
- [C19] M.T. Laraba, S. Olaru, S. Niculescu, F. Blanchini, S. Miani, D. Casagrande and G. Giordano, “Set Invariance for Delay Difference Equations”, 12th IFAC Workshop on Time Delay Systems, Ann Arbor, Michigan, U.S.A., 2015.
- [C20] F. Blanchini, D. Casagrande, G. Giordano and U. Viaro, “Properties of Switching-Dynamics Race Models”, European Control Conference, Linz, Austria, 2015.
- [C21] D. Casagrande, W. Krajewski and U. Viaro, “LPV Embedding of Nonlinear Compartmental Systems with Endogenous Control”, 19th International Conference on Methods and Models in Automation and Robotics, Miedzyzdroje, Poland, 2014.
- [C22] D. Casagrande, G. Fenu, F.A. Pellegrino and A. Astolfi, “Application of Hamiltonian Dynamics to Manipulator Control in Constrained Workspace”, 52st IEEE Conference on Decision and Control, Florence, Italy, 2013.
- [C23] F. Blanchini, D. Casagrande, S. Miani and U. Viaro, “An LPV control scheme for induction motors ”, 51st IEEE Conference on Decision and Control, Maui, U.S.A., 2012.
- [C24] D. Casagrande, A. Astolfi and R. Ortega, “A Solution to the Problem of Transient Stability of Multimachine Power Systems”, 51st IEEE Conference on Decision and Control, Maui, U.S.A., 2012.
- [C25] D. Casagrande, F.A. Pellegrino and A. Astolfi, “Hamiltonian dynamics for robot navigation”, 9th IEEE International Conference on Control & Automation, Santiago, Chile, 2011.
- [C26] D. Casagrande, A. Astolfi and R. Ortega, “Global Stabilization of Non-Globally Linearizable Triangular Systems: Application to Transient Stability of Power Systems”, 50th IEEE Conference on Decision and Control and European Control Conference, Orlando, U.S.A., 2011.
- [C27] F. Blanchini, D. Casagrande and P.L. Montessoro, “A novel algorithm for dynamic admission control of elastic flows”, 50th FITCE International Congress, Palermo, Italy, 2011.
- [C28] F. Blanchini, D. Casagrande and P.L. Montessoro, “Robust Stability and Performance of a P-persistent Communication Protocol”, 18th IFAC World Congress, Milan, Italy, 2011.
- [C29] F. Blanchini, D. Casagrande, P. Gardonio and S. Miani, “On optimal damping of vibrating structures”, 18th IFAC World Congress, Milan, Italy, 2011.
- [C30] F. Blanchini, D. Casagrande, W. Krajewski, S. Miani and U. Viaro, “Point-wise optimal LPV stabilizing control for induction motors”, 9th International Conference on Advanced Manufacturing Systems and Technology, Mali Losinj, Croatia, 2011.
- [C31] D. Casagrande, Ü Kotta, M. Tonso and M. Wyrwas, “Mathematica Application for Nonlinear Control Systems on Time Scales”, International Congress on Computer Applications and Computational Science, Singapore, 2010.

- [C32] F. Blanchini, D. Casagrande and S. Miani, “Parametrization of all stabilizing compensator for absorbable nonlinear systems”, 49th Conference on Decision and Control, Atlanta, U.S.A., 2010.
- [C33] D. Casagrande, M. Sassano and A. Astolfi, “A Hamiltonian approach to moments-based character recognition”, 48th Conference on Decision and Control & 28th Chinese Control Conference, Shanghai, China, 2009.
- [C34] D. Casagrande, A. Astolfi and R. Ortega, “Asymptotic Stabilization of Passive Systems without Damping Injection: A Sampled Integral-Approximation Technique”, 48th Conference on Decision and Control & 28th Chinese Control Conference, Shanghai, China, 2009.
- [C35] F. Blanchini, D. Casagrande, S. Miani and U. Viaro, “Stable LPV realization of parametric transfer functions and its application to gain-scheduling control design”, 48th Conference on Decision and Control & 28th Chinese Control Conference, Shanghai, China, 2009.
- [C36] F. Blanchini, D. Casagrande and S. Miani, “Modal and transition dwell time computation in switching systems: a set-theoretic approach”, 48th Conference on Decision and Control & 28th Chinese Control Conference, Shanghai, China, 2009.
- [C37] D. Casagrande and A. Astolfi, “Time-Dependent Hamiltonian Functions and the Representation of Dynamic Measurements Sets”, European Control Conference, Budapest, Hungary, 2009.
- [C38] D. Casagrande, M. Sassano and A. Astolfi, “Estimation of the Dynamics of Two-Dimensional Clusters”, American Control Conference, St. Louis, U.S.A., 2009.
- [C39] D. Casagrande, A. Astolfi and T. Parisini, “Stabilization of a Class of Non-holonomic Systems by Means of Switching Control Laws”, 47th Conference on Decision and Control, Cancun, Mexico, 2008.
- [C40] D. Casagrande and A. Astolfi, “A Hamiltonian-Based Algorithm for Measurements Clustering”, 47th Conference on Decision and Control, Cancun, Mexico, 2008.
- [C41] D. Casagrande, Ü. Kotta, M. Wyrwas and M. Tonso, “Transfer equivalence of nonlinear delta differential equations on homogeneous time scales”, American Control Conference, Seattle, U.S.A., 2008.
- [C42] D. Casagrande, Ü. Kotta and M. Wyrwas, “State-space realization of nonlinear input-output delta differential equations on homogeneous time-scales”, 3rd IFAC Symposium on System, Structure and Control, Foz do Iguaçu, Brazil, 2007.
- [C43] D. Casagrande, A. Astolfi and T. Parisini, “A Globally Stabilizing Time-switching Control Strategy for the Attitude of an Underactuated Rigid Body”, American Control Conference, New-York, U.S.A., 2007.
- [C44] D. Casagrande, A. Astolfi and T. Parisini, “Switching-based Lyapunov Function and the Stabilization of a Class of Non-holonomic Systems”, 10th International Conference on Hybrid Systems: Computation and Control, Pisa, Italy, 2007.
- [C45] D. Casagrande, A. Astolfi and T. Parisini, “Achieving stability in non-holonomic systems by means of switched control laws”, CTS-HYCON Workshop on Nonlinear and Hybrid Control, Paris, 2007.

- [C46] D. Casagrande, A. Astolfi and T. Parisini, “A stabilizing time-switching control strategy for the rolling sphere”, 44th Conference on Decision and Control & ECC, Seville, Spain, 2005.
- [C47] D. Casagrande, A. Astolfi and T. Parisini, “Control of nonholonomic systems: a simple stabilizing time-switching strategy”, 16th IFAC World Congress, Prague, Czech Republic, 2005.
- [C48] D. Casagrande, S. Di Maio and T. Parisini, “A Novel Approach in Modeling the Contact Surface for ‘Long’ Products Rolling Mill”, 11th IFAC Symposium on Automation in Mining, Mineral and Metal processing - MMM 2004, Nancy, France, 2004.
- [C49] D. Casagrande, F. Kayhan, V.V. Semeshenko and C. Zambon, “A smooth neural approximator for multi-criteria fire detection”, 13th International Conference on Automatic Fire Detection - AUBE '04, Duisburg, Germany, 2004.
- [C50] L. Bregant, D. Casagrande, S. Helderweirt, P. Mas and H. Van der Auweraer, “Application of accelerometer-based rotational degree of freedom measurements for engine subframe modelling”, XIX International Modal Analysis Conference, Kissimmee, Florida, U.S.A., 2001.
- [C51] L. Bregant and D. Casagrande, “Rotational degrees of freedom data synthesis based on force excitation”, International Seminar on Modal Analysis, ISMA25, Louvain, Belgium, 2000.

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