



**UNIVERSITÀ DEGLI STUDI DELL'AQUILA
CORSI DI INGEGNERIA**

**Prof. Alfredo Germani
Curriculum scientifico**

(Aggiornato il 30/10/2013)

Alfredo Germani was born in Rome in 1947, he received, summa cum laude, the Laurea in Physics in 1972 and the postdoctoral degree in Computer and System Engineering in 1974, both from the University "La Sapienza" of Rome.

PROFESSIONAL EXPERIENCE.

- 1/11/1987-present, Full Professor, Automatic Control and Robotics (ING-INF/04), Università dell'Aquila.
- 1/1/1987- present, Research Associate at "Istituto di Analisi dei Sistemi e Informatica" (IASI-CNR) of Rome.
- 18/6/1986-30/10/1987, Full Professor, Automatic Control, Università della Calabria.
- 15/12/1975- 17/6/1986, Researcher, IASI-CNR, Rome.
- 18/2/1978- 10/5/1979, Visiting Scholar at Dept. of System Sciences at the University of California at Los Angeles, (UCLA), U.S.A.
- 10/12/1973-10/12/1975, CNR Research Fellow, Istituto di Automatica , Università di Roma, La Sapienza.

ACADEMIC ACTIVITY:

- 2007-present, President of the Executive Committee for the second-level Engineering Master: Metodi di Ottimizzazione e Data Mining.
- 2007-present, Member of the Executive Committee of the Engineering Faculty of the University of L'Aquila.
- 2001-present, Member of the Executive Committee of the Research Center of Excellence, "DEWS", of the University of L'Aquila.

Automatica" at the University of L'Aquila.

- 1995-2000, Head of the Electrical Engineering Department.

- 1991-1994, Chairman of the School of Electronic Engineering.

- 1995-1998, In Charge of the Management for the Control Section of the TEMPUS-TACIS Program for cooperation with the Technical University of Almaty, Kazakhstan.

Research Topics

RESEARCH AREAS:

- FILTERING THEORY

- STOCHASTIC CONTROL

- NONLINEAR CONTROL SYSTEMS

- DELAY SYSTEMS

- APPROXIMATION THEORY

- IMAGE PROCESSING

- MODELLING OF BIOLOGICAL PROCESSES

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Publications

j-INTERNATIONAL JOURNAL PAPERS:

j71)Cacace F, Germani A, Palumbo P (2013). The observer follower filter: A new approach to nonlinear suboptimal filtering . AUTOMATICA, vol. 49, p. 548-553, ISSN: 0005-1098, doi: 10.1016/j.automatica.2012.11.023

j70)Fasano A, Germani A, Moneriù A (2013). REDUCED-ORDER QUADRATIC KALMAN-LIKE FILTERING OF NON-GAUSSIAN SYSTEMS. IEEE TRANSACTIONS ON AUTOMATIC CONTROL, vol. 58, p. 1744-1757, ISSN: 0018-9286, doi: 10.1109/TAC.2013.2246474

j69)Conte F, Cusimano V, Germani A (2013). Robust planar tracking via a virtual measurement approach. EUROPEAN JOURNAL OF CONTROL, vol. 19, p. 146-156, ISSN: 0947-3580, doi:

<http://dx.doi.org/10.1016/j.ejcon.2012.04.001>

j68)Cacace F, Germani A, Manes C, Setola R (2012). A New Approach to the Internally Positive Representation of Linear MIMO Systems. *IEEE TRANSACTIONS ON AUTOMATIC CONTROL*, vol. 57, p. 119-134, ISSN: 0018-9286, doi: 10.1109/TAC.2011.2158170

j67)Cacace F, Farina L, Germani A, Manes C (2012). Internally Positive Representation of a Class of Continuous Time Systems. *IEEE TRANSACTIONS ON AUTOMATIC CONTROL*, ISSN: 0018-9286, doi: <http://dx.doi.org/10.1109/TAC.2012.2199172>

j66)Cacace F, Paci P, Cusimano V, Germani A, Farina L (2012). Stochastic Modeling of Expression Kinetics Identifies Messenger Half-Lives and Reveals Sequential Waves of Co-ordinated Transcription and Decay. *PLOS COMPUTATIONAL BIOLOGY*, ISSN: 1553-7358, doi: 10.1371/journal.pcbi.1002772

j65)Cacace F, Germani A, Palumbo P (2012). The state observer as a tool for the estimation of gene expression. *JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS*, vol. 391, p. 382-396, ISSN: 0022-247X, doi: 10.1016/j.jmaa.2012.02.026

j64)Germani A, Manes C (2012). Two families of semiglobal state observers for analytic discrete-time systems . *AUTOMATICA*, vol. 48, p. 1707-1714, ISSN: 0005-1098, doi: 10.1016/j.automat.2012.05.030

j63)Cacace F, Cusimano V, Di Paola L, Germani A (2011). Observer-based techniques for the identification and analysis of avascular tumor growth. *MATHEMATICAL BIOSCIENCES*, vol. 234, p. 147-153, ISSN: 0025-5564, doi: 10.1016/j.mbs.2011.10.002

j62)F. CACACE, GERMANI A, C.MANES (2010). An observer for a class of nonlinear systems with time varying observation delay. *SYSTEMS & CONTROL LETTERS*, vol. 59, p. 305-312, ISSN: 0167-6911, doi: 10.1016/j.sysconle.2010.03.005

j61)FARINA L, GERMANI A, MAVELLI G, PALUMBO P (2010). Identification of Regulatory Network Motifs from Gene Expression Data. *JOURNAL OF MATHEMATICAL MODELLING AND ALGORITHMS*, vol. 9, p. 233-245, ISSN: 1570-1166, doi: 10.1007/s10852-010-9137-x

j60)Cacace F, Germani A, Manes C (2010). Observability through delayed measurements: a new approach to state observers design. *INTERNATIONAL JOURNAL OF CONTROL*, vol. 83, p. 2395-2410, ISSN: 0020-7179, doi: 10.1080/00207179.2010.528035

j59)GERMANI A, C.MANES, P.PALUMBO (2010). Representation of a Class of MIMO Systems via Internally Positive Realization. *EUROPEAN JOURNAL OF CONTROL*, vol. 16, p. 291-304, ISSN: 0947-3580, doi: 10.3166/EJC.16.291-304

J58)- A. Germani, C. Manes, "A discrete-time observer based on the polynomial approximation of the inverse observability map", *European Journal of Control*, Vol. 14, No. 2, 2009;

J57) A. Germani, C. Manes, P. Palumbo, "State Estimation of Stochastic Systems with Switching Measurements: A Polynomial Approach," *International Journal of Robust and Nonlinear Control*, 2009.

J56)- M. P. Di Ciccio, A. Germani, P. Pepe, A New Filter for Nonlinear Systems by means of Deterministic Nonlinear Observers, *International Journal of Pure and Applied Mathematics*, Vol. 49, N. 3, pp. 317-322, 2008.

Carleman Approximation Approach," IEEE Transactions on Automatic Control, Vol. 51, No. 11, pp. 2166-2172, November 2007.

J54)-A. Germani, C. Manes, P. Palumbo, P. Pepe, " Robust approximation scheme for the LQG control of an undamped flexible beam with a tip mass", European Journal of Control, Vol.12, N.6, pp. 635-651, 2006.

J53)- A. Germani, C. Manes, P. Palumbo, M. Sciandrone, "A higher order method for the solution of nonlinear scalar equations," to appear on Journal of Optimization Theory and Applications, Vol.131, N. 3, pp. 347-364, 2006.

J52)- A. Germani, C. Manes, P. Palumbo, "Filtering for bimodal systems: the case of unknown switching statistics?", IEEE Transactions on Circuits and Systems-I: Regular papers, Vol. 53, N.6, pp. 1266-1277, 2006.

J51)- A. Germani, C. Manes, P. Palumbo, "Polynomial Extended Kalman Filter?", IEEE Transactions on Automatic Control, Vol. 50, No. 12, Dicembre 2005 (B).

J50)- A. Germani, P. Pepe, "A state observer for a class of nonlinear systems with multiple discrete and distributed time delays, European J. of Control, issue 3, 2005.

J49)- A. Germani, C. Manes, P. Palumbo, "Polynomial filtering for stochastic non-gaussian descriptor systems", IEEE Transactions on Circuits and Systems I: Regular papers, Vol. 51, No. 8, pp. 1561-1576, August 2004.

J48)- A. Germani, C. Manes, P. Pepe:" Input-output linearization with delay cancelation for nonlinear delay systems: the problem of the -internal stability", Int. Journal of Robust and Nonlinear Control, (special issue on delay systems), Vol.13, N. 9, July, 2003.

J47) - A. Germani,C. Manes, P. Palumbo:" Optimal linear filtering for bilinear stochastic systems with unknown inputs", IEEE Trans. on AC, Vol. 47, pp.1726-1730, October 2002.

J46)- A. Germani, G. Mavelli:" The polynomial approach to the LQ non-gaussian regulator problem", IEEE Trans. on AC, Vol.47, N.8, August 2002.

J45)- F. Carravetta, A. Germani, R. Liptser, C. Manes:" Filtering of nonlinear stochastic feedback systems", SIAM J. Control and Optimisation, Vol. 40, N.5, pp. 1576-1584, 2002.

J44)- A. Germani, C. Manes, P. Pepe:" A new approach to state observation of nonlinear systems with delayed output", IEEE Trans. on AC, Vol. 47, N. 1, January, pp.96-101, 2002.

J43)- M. Dalla Mora, A. Germani, A. Nardecchia:" Restoration of images corrupted by additive non-gaussian noise", IEEE Trans. on Circuits and Systems I, Vol. 48, N. 7, pp. 859-875, 2001. (regular paper)

J42)- A. Germani, C. Manes, P. Pepe:" An asymptotic state observer for a class of nonlinear delay systems", Kybernetika, Special Issue on Delay Systems, Vol. 37, pp. 459-478, 2001.

J41)- F. Carravetta, A. Germani, M. K. Shuakayev:" A new suboptimal approach to the filtering problem for bilinear stochastic differential systems", SIAM J. Control and Optimization, Vol 38, N. 4, pp. 1171-1203,

2000.

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J38)- M. Dalla Mora, A. Germani, C. Manes:"Design of state observers from a drift-observability property", IEEE Trans. on AC, Vol. 45, N. 8, pp.1536-1540, August, 2000.

J37)- A. Germani, G. Mavelli:" Optimal quadratic solution for the non-gaussian finite-horizon regulator problem", Systems & Control Letters, Vol. 38, pp. 321-331, 1999.

J36)- A. Germani, C. Manes: "State observer for nonlinear systems with smooth/bounded inputs", Kybernetika, Vol. 35, December, 1999.

J35)- M.Dalla Mora, A. Germani, C. Manes:" A state observer for nonlinear dynamical systems", Nonlinear Analysis: Theory, Methods and Applications, Vol. 30, N. 7, pp. 4485-4496, dicembre 1997.

J34)- F. Carravetta, A. Germani, R. Raimondi:" Polynomial filtering of discrete-time stochastic linear systems with multiplicative state noise", IEEE Trans. on AC, Vol. 42, N. 8,pp. 1106-1126, 1997.(regular paper).

J33)- F. Carravetta, A. Germani, M. Raimondi : " Polynomial filtering for linear discrete time non-gaussian systems", SIAM J. Control and Optimization, Vol. 34, N. 5, pp.1666-1690, 1996.

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J31)- G. Ciccarella, M. Dalla Mora, A. Germani: " A robust observer for discrete time nonlinear systems", Systems & Control Letters, Vol. 24, N. 3, pp. 291-300, 1995.

J30)- A. De Santis, A. Germani, M. Raimondi : " Optimal recursive second order polynomial estimation for linear discrete time non-gaussian systems", IEEE Trans. on AC, Vol. 40, N. 7, 1995.

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J28)- A. De Santis, A. Gandolfi, A. Germani, P. Tardelli : " Polynomial approximation for a class of physical random variable", Proc. Of the Am. Math. Society, Vol. 120, N. 1, pp. 261-266, 1994.

J27)- G. Ciccarella, M. Dalla Mora, A. Germani:" Observers for discrete time nonlinear systems", Systems & Control Letters, Vol. 20, N. 5, pp. 373-382, 1993.

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- space of Hilbert-Schmidt operators", *SIAM J. Control and Optimization*, Vol. 31, pp. 847-874, July 1993.
- J24)- G. Ciccarella, M. Dalla Mora, A. Germani: " A Luenberger-like observer for nonlinear systems", *Int. Journal of Control*, Vol. 57, N.3, pp.537-556, 1993.
- J23)- C. Bruni, A. Germani : " Stochastic modelling for a telecommunication satellite", *SAMS*, Vol. 9, pp. 265-289, 1992.
- J22)- A. De Santis, A. Germani, L. Jetto : " Image modelling by smooth two-dimensional gaussian processes in the recursive restoration problem ", *Physica Medica*, Vol. 6, pp. 25-34, 1990.
- J21)- A. Germani: " Bidimensional filtering", *Physica Medica*, 2-4, pp. 213-216, 1989.
- J20)- A. Germani, L. Jetto: " Image modelling and restoration: a new approach", *Circuits Systems and Signal Processing*, Vol. 7, N. 4, 1989.
- J19)- A. Germani, L. Jetto, M. Piccioni: " Galerkin approximation for optimal filtering of infinite dimensional linear systems", *SIAM J. Control and Optimization*, Vol. 26, N. 6, 1988.
- J18)- A. Germani, M. Piccioni: " Semi-discretization of stochastic partial differential equations on R^d by a finite-element technique", *Stochastics*, Vol. 23, pp. 131-148, 1988.
- J17)- A. Bertuzzi, A. Gandolfi, A. Germani, R. Vitelli, G. Badaracco, G. Storace: " Study of cell kinetics by computer-analyzed flow cytometric histograms", *Comput. Math. Applic.*, Vol. 14, N. 9-12, pp. 763-770, 1987.
- J16)- A. Germani, M. Piccioni: "Finite dimensional approximation for the equations of nonlinear filtering derived in mild form", *Applied Math. And Optimization*, Vol, 16, pp. 51-72, 1987.
- J15)- S. Fioretti, A. Germani, T. Leo: " Stereometry in very-close range stereophotography by non-metric cameras for human movement analysis", *J. Biomechanics*, Vol. 18, pp. 831-842, 1985.
- J14)- P. d'Alessandro, A. Germani, M. Piccioni: " Relationships between measures induced by Ito and white noise linear equations", *Math. And Comp. In Simulations*, Vol. 26, pp. 368-372, 1984.
- J13)- A. Bertuzzi, A. Gandolfi, A. Germani, G. Starace, M. Spanò: " Analysis of DNA synthesis rate of cultured cells from cytofluorimetric data", *Cytometry*, Vol. 5, pp. 619-628, 1984.
- J12)- C. Bruni, A. Gandolfi, A. Germani: " Analysis of the parameter constraints for a proposed antibody affinity distribution", *J. on Theor. Biol.*, Vol. 109, pp.71-76, 1984.
- J11)- A. Germani, S. Monaco: "Functional output epsilon-trajectory controllability for linear systems on Hilbert spaces", *Systems & Control Letters*, Vol. 2, pp.313-320, 1983.
- J10)- A. Bertuzzi, A. Gandolfi, A. Germani, R. Vitelli: "A general expression for sequential DNA-fluorescence histograms", *J. on Theor. Biol.*, Vol. 102, pp. 55-67, 1983.
- J9)- A. Gandolfi, A. Germani: " On the definition of a topology in Hilbert spaces with applications to the

white noise theory", J. of the Franklin Inst., Vol. 316, pp 435-444, 1983.

J8)- A. Bertuzzi, A. Gandolfi, A. Germani, R. Vitelli: " Estimation of DNA-syntetic rates from FCM histograms", Cell Biophysics, Vol. 5, pp.223-236, 1983.

J7)- A. Bertuzzi, C. Bruni, A. Gandolfi, A. Germani: " Volterra series expansion for bilinear systems in a nonlinear feedback loop", J. on Dynamic Syst., Meas. And Control, Vol.103, pp.84- 88, 1981.

J6)- A. Bertuzzi, A. Gandolfi, A. Germani: " Causal polynomial approximations of input-output maps on Hilbert spaces", Math. Systems Theory, Vol. 14, pp. 339-352, 1981.

J5)- A. Bertuzzi, A. Gandolfi, A. Germani: " A Weierstrass-like theorem for real separable Hilbert spaces", J. on Approx. Theory , Vol. 32, pp. 76-81, 1981.

J4)- A. Germani, S. Monaco: " Some results on the controllability of perturbed linear systems on Hilbert spaces" Systems & Control Letters, Vol. 1, pp. 140-147, 1981

J3)- A. Germani, P. Sen: " White noise solution for a class of distributed feedback systems with multiplicative noise", Ricerche di Automatica, Vol. 10, pp.339-352, 1981.

J2)- C. Bruni, A. Gandolfi, A. Germani: "Observability of linear in the state systems: a functional approach", IEEE Trans. on AC, Vol. 25, pp. 566-567.

J1)-C.Bruni, A. Germani, G. Koch, R. Strom: " Derivation of antibody distribution from experimental binding data", J. on Theor. Biol., Vol.61, pp. 143-170, 1976.

ii)-INTERNATIONAL CONFERENCE PAPERS:

C79)- A. Germani, C. Manes, "State observers for systems with sensors modeled by polynomials and rational functions", 16th Mediterranean Conference on Control and Automation (MED08), Ajaccio, Francia, Giugno 2008;

C78)-A. Germani, C. Manes, "The Polynomial Extended Kalman Filter as an Exponential Observer for Nonlinear Discrete-Time Systems", 47th IEEE Conference on Decision and Control (CDC08) Cancun, Messico, Dicembre 2008.

C77)- A. Germani, C. Manes, P. Palumbo, "Simultaneous system identification and channel estimation: a hybrid system approach", 46th IEEE Conference on Decision and Control (CDC07), pp. 1764-1769, New Orleans, Louisiana, Dicembre 2007;

C76)- A. Germani, C. Manes, P. Palumbo, "State space representation of a class of MIMO systems via combination of positive systems", 46th IEEE Conference on Decision and Control (CDC07), pp. 476-481, New Orleans, Louisiana, Dicembre 2007;

C75)- A. Germani, C. Manes, "An exponential observer for discrete-time systems with bilinear drift and

rational output functions" European Control Conference (ECC07), pp. 5777-5782, Kos, Grecia, Luglio 2007.

C74) A. Germani, F. Graziosi, C. Manes, G. Ocera, P. Palumbo, "Recursive filtering for log-Rice signals", 45th IEEE Conference on Decision and Control (CDC06), pp.3150-3155, San Diego, California, dicembre 2006.

C73)- D. Di Martino, A. Germani, C. Manes, P. Palumbo, "Design of observers for systems with rational output function", 45th IEEE Conference on Decision and Control (CDC06), pp.1641-1646, San Diego, California, dicembre 2006.

-C72) A. Germani, C. Manes, P. Palumbo, "Polynomial filtering and identification of discrete-time nonlinear uncertain stochastic systems?", 44th Conference on Decision and Control & European Control Conference (CDC-ECC05), Siviglia, Spagna, pp. 1917-1922, dicembre 2005.

-C71) A. Germani, C. Manes, P. Palumbo, "Filtering of differential nonlinear systems via a Carleman approximation approach?", 44th Conference on Decision and Control & European Control Conference (CDC-ECC05), Siviglia, Spagna, pp. 5917-5922, dicembre 2005.

-C70) A. Germani, C. Manes, P. Palumbo, "A Family of polynomial filters for discrete-time nonlinear stochastic systems?", IFAC 16th World Congress, Praga, Repubblica Ceca, Luglio 2005.

-C69)A. DE GAETANO, D. DI MARTINO, GERMANI A., C. MANES, P. PALUMBO. "Distributed-delays models of the glucose-insulin homeostasis and asymptotic state observation". Proc. of the IFAC-16th World Congress. Praga, Repubblica Ceca. Luglio 2005.

-C68) D. Di Martino, A. Germani, C. Manes, P. Palumbo, "Polynomial approach for filtering and identification of a class of uncertain systems?", 2nd IFAC Symposium on Systems, Structure and Control (SSSC04)}, Oaxaca, Mexico, pp. 579-584, Dicembre 2004.

-C67) A. Germani, P. Pepe, "An Observer for a Class of Nonlinear Systems with Multiple Discrete and Distributed Time Delays", 16th MTNS, Leuven, Belgium, 2004;

-C66) A. Germani, C. Manes, P. Palumbo, "Polynomial filtering for stochastic non-Gaussian descriptor systems", 43rd IEEE Conference on Decision and Control (CDC04), Bahamas, Dicembre 2004.

-C65) D. Di Martino, A. Germani, C. Manes, P. Palumbo, "Quadratic filtering for simultaneous state and parameter estimation of uncertain systems", 43rd IEEE Conference on Decision and Control (CDC04), Bahamas, Dicembre 2004.

-C64) D. Di Martino, A. Germani, C. Manes, P. Palumbo, "State observation for systems with linear dynamics and polynomial output", 43rd IEEE Conference on Decision and Control (CDC04)}, Bahamas, Dicembre 2004.

-C63) C. Di Loreto, A. Germani, C. Manes, "Polynomial Extension of Linear Subspace Algorithms for Stochastic Identification", 43rd IEEE Conference on Decision and Control (CDC04), Bahamas, Dicembre

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-C 62) D. Di Martino, A. Germani, C. Manes, P. Palumbo, "Polynomial approach for filtering and identification of a class of uncertain systems", 2nd IFAC Symposium on Systems, Structure and Control (SSSC04)}, Oaxaca, Mexico, Dicembre 2004.

-61) A. Germani, C. Manes, P. Palumbo, "A Minimum Variance Filter for Discrete-Time Linear Systems Perturbed by Unknown Nonlinearities", 2003 International Symposium on Circuits and Systems (ISCAS2003), Bangkok, Thailand, Maggio 2003.

-C60) A. De Gaetano, D. Di Martino, A. Germani, C. Manes, "Mathematical models and state observation of the glucose-insulin homeostasis", proc. of the 21st IFIP TC 7 Conference on System Modeling and Optimization, Sophia Antipolis, France, July 21h-25, 2003, J. Cagnol and J.P. Zolesio Editors, pp. 283-294.

-C59) A. Germani, C. Manes, P. Palumbo, "Polynomial Filtering for Stochastic Systems with Markovian Switching Coefficients", 42th IEEE Conference on Decision and Control (CDC'03), Maui, Hawaii, Dicembre 2003.

-C58) A. Germani, C. Manes, P. Palumbo, "Polynomial Extended Kalman Filtering for Discrete-Time Nonlinear Stochastic Systems", 42th IEEE Conference on Decision and Control (CDC'03), Maui, Hawaii, Dicembre 2003.

-C 57) A. Germani, C. Manes, P. Palumbo: "Filtering of switching systems via a singular minimax approach", Proc of the 41th IEEE Conf. on Decision and Control, (CDC'02), Las Vegas, Nevada, Dec. 2002.

-C56) A. Germani, C. Manes, P. Palumbo: "State estimation of a class of stochastic variable structure systems", Proc of the 41th IEEE Conf. on Decision and Control, (CDC'02), Las Vegas, Nevada, Dec. 2002.

-C55) A. Germani, C. Manes, P. Palumbo: "Kalman-Bucy filtering for singular stochastic differential systems", Proc. of the 15th IFAC World Congress, Barcellona, Spain, July, 2002.

-C54) A. Germani, C. Manes, P. Pepe: "State observation for nonlinear hybrid automata", Proc. of 2nd Conf. on Instrumentation, Measurement, Control, Circuits and Systems, 2002, 12-16, May, 2002, Cancun, Mexico.

- C53) A. Germani, C. Manes: "A state observer for nonlinear delay systems with delayed output", Proc. of the 2002 IASTED Conf. on Control and Applications (CA 2002), pp. 301-306, 20-22, May, 2002, Cancun, Mexico.

- C52) A. Germani, C. Manes, P. Palumbo: "Optimal linear filtering for stochastic non-Gaussian descriptor systems", Proc. of the 40th IEEE Conf. on Decision and Control, (CDC'01), Orlando, FL, Dec. 2001.

- C51) A. Germani, C. Manes: "On the existence of the linearizing state-feedback for nonlinear delay systems", Proc. of the 40th IEEE Conf. on Decision and Control, (CDC'01), Orlando, FL, Dec. 2001.

-C50) A. Germani, C. Manes, P. Pepe: "State observer for nonlinear systems with large output delays", Proc. of the 5th IFAC Symp. on Nonlinear Control Systems, (NOLCOS'01), St. Petersburg, Russia, July, 2001.

-C49) F. Carravetta, A. Germani, M. K. Shuakayev: "A new suboptimal approach to the filtering problem for

- bilinear stochastic differential systems", Proc. of the 39th IEEE Conf. on Decision and Control, (CDC'2000), Sydney, Australia, Dec. 2000.
- C 48) F. Carravetta, A. Germani, R. Lipster, C. Manes:" Filtering of nonlinear stochastic feedback systems", Proc. of the 39th IEEE Conf. on Decision and Control, (CDC'2000), Sydney, Australia, pp. 4270-4373, Dec. 2000.
- C 47) A. Germani, C. Manes, P. Pepe:" State observation of nonlinear systems with delayed output measurements", Proc. of the IFAC Workshop on Time Delay Systems, Ancona, pp.58-63, Sep. 2000.
- C 46) A. Germani, C. Manes:" A Bayesian approach for position estimation of a sensed mobile robot", World Automation Conference 2000, Maui, Hawaii, June, 2000.
- C 45) M. Dalla Mora, A. Germani, A. M. Nardecchia:" 2-D filtering for images corrupted by non-gaussian noise", Proc of the 38th IEEE Conf. on Decision and Control, (CDC'99), Phoenix, AZ, Dec. 1999.
- C 44) F. Carravetta, A. Germani, C. Manes:" Optimal filtering for degenerate nonlinear diffusions", Proc. of the 38th IEEE Conf. on Decision and Control, (CDC'99), Phoenix, AZ, pp. 4577-4582, Dec. 1999.
- C 43) A. Germani, C. Manes, P. Pepe:" An observer for MIMO nonlinear delay systems", 14th IFAC World Conference, (IFAC'99), Beijing, China, 1999.
- C 42) A. Germani, C. Manes, P. Pepe:" State observers for nonlinear systems with output delayed informations", 5th European Control Conference, (ECC'99), Karlsruhe, Germany, Aug. 1999.
- C 41) F. Carravetta, A. Germani:" Optimal linear finite-dimensional filtering for bilinear stochastic differential systems", Proc. of the 37th IEEE Conf. on Decision and Control, (CDC'98), Tampa, Florida, Dec. 1998.
- C 40) A. Germani, C. Manes, P. Pepe:" A state observer for nonlinear delay systems", Proc. of the 1998 IEEE Conf. on Decision and Control, (CDC'98), Tampa, Florida, Dec. 1998.
- C 39) A. Germani, C. Manes, P. Pepe:" Tracking, model matching, disturbance decoupling for a class of nonlinear delay systems", Proc. of Large Scale Systems IFAC Conference, LSS'98, Patras, Greece, Vol. 1, pp. 423-429, July, 1998.
- C 38) A. Germani, C. Manes, P. Pepe:" Linearization and decoupling of nonlinear delay systems", Proc. of the IEEE 1998 American Control Conference, (ACC'98), Philadelphia, PA, June, 1998.
- C 37) M. Dalla Mora, A. Germani, C. Manes, P. Pepe:" Output Control of nonlinear systems with multiple discrete delays", Proc. of the IEEE 6th Mediterranean Conference on Control and Systems, Alghero, June, 1998.
- C 36) A. Germani, C. Manes, P. Pepe:" Local asymptotic stability for nonlinear state feedback delay systems", Proc. of the IEEE 6th Mediterranean Conference on Control and Systems, Alghero, June, 1998.
- C 35) A. Germani, C. Manes:" State observers for nonlinear systems with slowly varying inputs", Proc. of

1997 IEEE Conf. on Decision and Control (CDC'97), S. Diego, California, Vol. 5, pp. 5054-5059, Dec. 1997.

-C 34) F. Carravetta, A. Germani, C. Manes:" On the relationship between open-loop and closed-loop state estimation for nonlinear stochastic systems", Proc. of the IFAC/IEEE Int. Symp. on Artificial Intelligence in Real-Time Control, (AIRC'97), Kuala Lumpur, Malaysia, pp.504-509, Sept. 1997.

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Teaching

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L'Aquila.

- 1996-1997, Digital Control, College of Engineering, University of Rome, "La Sapienza".
- 1986-1987, Automatic Control, College of Engineering, University of Calabria.
- 1986-1987, " Reliability Theory", College of Engineering, University of Calabria.
- 1981-1984, " Identification of Deterministic and Stochastic Systems", College of Engineering, University of Ancona, (Contract Course).
- 1979-1982, Stochastic System Theory, "post graduate course in Computer and Control Systems", College of Engineering, University of Rome.