

**Dati anagrafici**

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**Afferenza**

DIMES, Università della Calabria (Cubo 42/C, quarto piano)

**Posizione attuale**

Professore Associato, Settore Scientifico-Disciplinare ING-INF/04 – *Automatica*

**Posizioni precedentemente ricoperte**

- 1991-1993 – Borsista presso l'Istituto per la Sistemistica e l'Informatica del Consiglio Nazionale delle Ricerche, Rende
- 1994-2005 – Ricercatore Universitario del Settore Scientifico-Disciplinare ING-INF/04 (Automatica) nella Facoltà di Ingegneria dell'Università della Calabria

**Formazione**

Laurea (*cum Laude*) in Ingegneria delle Tecnologie Industriali, Facoltà di Ingegneria, Università della Calabria, 7 Marzo 1990, Relatore Prof. L. Carotenuto

**Attività didattica istituzionale attuale**

- Corso di *Automazione Industriale*, 6 CFU, Corso di Laurea Magistrale in Ingegneria Gestionale, Università della Calabria (A. A. 2006-2007, -)
- Corso di *Controlli Automatici*, 9 CFU, Corso di Laurea in Ingegneria Gestionale, Università della Calabria (A. A. 2006-2007, -)

**Servizi prestati negli Atenei e negli Enti di Ricerca italiani e stranieri**

- Membro del Consiglio di Amministrazione dell'Università della Calabria da Novembre 2001 a Ottobre 2005 quale rappresentante dei Ricercatori, e da Novembre 2007 – Ottobre 2009 quale rappresentante dei Professori associati
- Membro della Giunta del Dipartimento di Elettronica, Informatica e Sistemistica della Università della Calabria dal 2000 al 2002
- Membro del Comitato Tecnico-Scientifico della Biblioteca Scientifica d'Ateneo della Università della Calabria dal 1999 al 2001

**Elenco delle pubblicazioni**

*Lavori pubblicati su rivista*

1. L. D'Alfonso, W. Lucia, P. Muraca, P. Pugliese, Mobile robot localization via EKF and UKF: A comparison based on real data, *Rob. Auton. Syst.* **74**, pp. 122-127, 2015
2. L. Carotenuto, P. Pugliese, Ya.D. Sergeyev, Maximizing performance and robustness of PI and PID controllers by global optimization, *Int. J. Control Intelligent Systems* **34**(3), pp. 225-235, 2006
3. D. Famularo, P. Pugliese, Ya.D. Sergeyev, Global optimization technique for low-order control design, *Int. J. Systems Sci.* **35**(7), pp. 425-434, 2004
4. A. Eisenberg, G. Franzè, P. Pugliese, M. Ruffolo, On the approximation error in Lagrange interpolation on equal intervals, *J. Comp. Analysis Appl.* **6**(4), pp. 349-356, 2004
5. P. Pugliese, On the normal matrix of the polynomial LS problem over the Chebyshev points, *Linear Algebra and Applications* **378**, pp. 61-69, 2004
6. Ya.D. Sergeyev, D. Famularo, P. Pugliese, Index information algorithm with local tuning for solving multidimensional global optimization problems with multiextremal constraints, *Mathematical Programming* **96**(A), pp. 489-512, 2003

7. Ya.D. Sergeyev, D. Famularo, P. Pugliese, Index Branch and Bound algorithm for Lipschitz univariate global optimization with multiextremal constraints, *J. Global Optimization* **21**(3), pp. 317-341, 2001
8. A. Eisenberg, P. Pugliese, N. Salerno, Vandermonde matrices on integer nodes: the rectangular case, *Numerische Mathematik* **87**(4), pp. 663-674, 2001
9. D. Famularo, P. Pugliese, Ya.D. Sergeyev, A global optimization technique for checking parametric robustness, *Automatica* **35**(9), pp. 1605-1611, 1999
10. A. Eisenberg, G. Franzè, P. Pugliese, Vandermonde matrices on integer nodes, *Numerische Mathematik* **80**(1), pp. 75-85, 1998
11. A. Eisenberg, G. Franzè, P. Pugliese, Vandermonde matrices on Chebyshev points, *Linear Algebra and Applications* **283**(1/3), pp. 205-219, 1998
12. P. Muraca, P. Pugliese, A variable structure regulator for robotic systems, *Automatica* **33**(7), pp. 1423-1426, 1997
13. P. Muraca, P. Pugliese, An adaptive filter using scanning observation with application to a DPS, *Int. J. Adaptive Control and Signal Processing* **8**(6), pp. 543-551, 1994
14. L. Carotenuto, P. Muraca, P. Pugliese, G. Raiconi, State estimation with optimal selection of the output matrix for discrete-time linear systems, *Int. J. Sys. Sci.* **24**(8), pp. 1519-1537, 1993
15. L. Carotenuto, P. Muraca, P. Pugliese, G. Raiconi, Recursive sensor allocation for a class of distributed parameter systems, *Int. J. Modelling Simul.* **12**(4), pp. 117-124, 1992

#### *Capitoli di libri*

15. D. Famularo, Ya.D. Sergeyev, P. Pugliese, Test problems for Lipschitz univariate global optimization with multiextremal constraints. In: G. Dzemyda, V. Saltenis and A. Zilinskas, editors, *Stochastic and Global Optimization*, pp. 93-110, Kluwer, 2001
16. D. Famularo, P. Pugliese, Ya.D. Sergeyev, Control system design via global optimization techniques. In: S.G. Tzafestas and G. Schmidt, editors, *Progress in Systems and Robot Analysis and Control Design*, pp. 107-116, Springer-Verlag, 1999
17. L. Carotenuto, P. Muraca, P. Pugliese, Optimization of the input structure for discrete time linear systems with application to distributed parameter systems. In: S.G. Tzafestas, P. Borne, editors, *Mathematics of the Analysis and Design of Process Control*, pp. 213-222. Elsevier Science, 1992
18. L. Carotenuto, P. Muraca, P. Pugliese, G. Raiconi, Optimization of the output matrix for discrete-time linear systems estimation. In: A. Sydow, editor, *Computational Systems Analysis*, pp. 293-298. Elsevier Science, 1992

#### *Lavori pubblicati in atti di congressi*

19. L. D'Alfonso, A. Grano, P. Muraca, P. Pugliese, Extended and unscented Kalman filters in a cells-covering method for environment reconstruction, *Proc. ICCA 2019*, Edinburgh, UK, July 2019
20. L. D'Alfonso, A. Grano, P. Muraca, P. Pugliese, A cells covering based method for Simultaneous Localization and Mapping in an unknown indoor environment, *Proc. European Control Conf.*, Linz, Austria, July 2015
19. L. D'Alfonso, A. Grano, P. Muraca, P. Pugliese, A new polynomial based SLAM algorithm for a mobile robot in an unknown indoor environment, *Proc. IEEE Conf. on Decision and Control*, Los Angeles, CA, December 2014

20. L. D'Alfonso, A. Grano, P. Muraca, P. Pugliese, A decentralized Polynomial based SLAM algorithm for a team of mobile robots, *Proc. IFAC World Congr. 2014*, Cape Town, SA, August 2014
21. L. D'Alfonso, E. Garone, P. Muraca, P. Pugliese, P3P and P2P Problems with known camera and object vertical directions, *Proc. IEEE Mediterranean Control Conf.*, Chania, Greece, June 2013
22. L. D'Alfonso, E. Garone, P. Muraca, P. Pugliese, On the use of the inclinometers in the PnP Problem, *Proc. European Control Conf.*, Zurich, Switzerland, July 2013
23. L. D'Alfonso, A. Grano, P. Muraca, P. Pugliese, A polynomial based SLAM algorithm for mobile robots using ultrasonic sensors - Experimental Results, *Proc. ICAR 2013*, Montevideo, Uruguay, November 2013
24. L. D'Alfonso, A. Grano, P. Muraca, P. Pugliese, Mobile robot localization in an unknown environment using sonar sensors and an incidence angle based sensors switching policy - Experimental results, *Proc. ICCA 2013*, Hangzhou, China, June 2013
25. L. D'Alfonso, A. Griffo, P. Muraca, P. Pugliese, A SLAM algorithm for indoor mobile robot localization using an Extended Kalman Filter and a segment based environment mapping, *Proc. ICAR 2013*, Montevideo, Uruguay, November 2013
26. L. D'Alfonso, A. Grano, P. Muraca, P. Pugliese, Sensor fusing using a convex combination of two Kalman filters - Experimental results, *Proc. ICAR 2013*, Montevideo, Uruguay, November 2013
27. L. D'Alfonso, A. Grano, P. Muraca, P. Pugliese, Sensor fusion and surrounding environment mapping for a mobile robot using a Mixed Extended Kalman Filter, *Proc. ICCA 2013*, Hangzhou, China, June 2013
28. G. Cotugno, L. D'Alfonso, W. Lucia, P. Muraca, P. Pugliese, Extended and Unscented Kalman Filters for mobile robot localization and environment reconstruction, *Proc. IEEE Mediterranean Control Conf.*, Chania, Greece, June 2013
29. L. D'Alfonso, W. Lucia, P. Muraca, P. Pugliese, Filters for Mobile Robots: EKF, UKF and Sensor Switching - Experimental Results, *Proc. ICCA 2011*, Santiago, Chile, 2011
30. L. D'Alfonso, P. Muraca, P. Pugliese, A new Extended Kalman Filter based on actual local information for mobile robots, *Proc. ACD 2011*, Budapest, Hungary, 2011
31. L. D'Alfonso, P. Muraca, P. Pugliese, Experimental results of a sensor switching policy for mobile robots, *Proc. IEEE Mediterranean Control Conf.*, Marrakech, Morocco, 2010
32. P. Muraca, P. Pugliese, G. Rocca, Nonlinear state estimation over wireless sensor networks. *Proc. European Control Conf.*, Budapest, Hungary, August 2009
33. P. Muraca, P. Pugliese, State Estimation for Distributed Parameter Systems under intermittent observations, *Proc. ICCA 2009*, Christchurch, New Zealand, December 2009
34. P. Muraca, P. Pugliese, G. Rocca, An extended Kalman filter for the state estimation of a mobile robot from intermittent measurements, *Proc. IEEE Mediterranean Control Conf.*, Ajaccio, France, June 2008
35. P. Muraca, P. Pugliese, G. Rocca, Extended Kalman filtering using wireless sensor network, *Proc. ETFA 2008*, Hamburg, Germany, September 2008
36. L. Carotenuto, P. Pugliese, A probabilistic approach to the intermittent measurements problem, *Proc. European Control Conf.*, Kos, Greece, July 2007

37. L. Carotenuto, P. Pugliese, Ya.D. Sergeyev, Maximizing performance and robustness of PI and PID controllers by global optimization, *Proc. IFAC World Congr.*, Barcelona, Spain, July 2002
38. D. Famularo, P. Pugliese, Ya.D. Sergeyev, A constrained global optimization method applied to low-order robust synthesis, *Proc. IFAC ROCOND*, Prague, June 2000
39. D. Famularo, P. Pugliese, Ya.D. Sergeyev, A global optimization technique for fixed-order control design, *Proc. American Control Conf.*, San Diego, CA, June 1999
40. A. Eisinberg, D. Famularo, P. Pugliese, Ya.D. Sergeyev, Global optimization techniques for checking parametric robustness, *Proc. MTNS*, Padua, Italy, July 1998
41. F. Donato, A. Eisinberg, P. Pugliese, Confining closed-loop poles using algebraic control theory, *Proc. IFAC Conf. on System Structure and Control*, Bucharest, October 1997
42. A. Eisinberg, R. Mainieri, P. Pugliese and Ya.D. Sergeyev, Estimating the parameters of Verhulst equation, *Proc. IMACS World Congr.*, Berlin, Germany, August 1997
43. A. Eisinberg, G. Franzè, P. Pugliese, Vandermonde matrices on Chebyshev points, *Proc. IMACS World Congr.*, Berlin, August 1997
44. A. Eisinberg, P. Pugliese, An analytic approach to polynomial LS approximation on equally spaced points, *Proc. European Control Conf.*, Rome, Italy, September 1995
45. D. Famularo, P. Muraca, P. Pugliese, An algorithm for allocation of strain-gages on flexible plates, *Proc. American Control Conf.*, Baltimore, MD, July 1994
46. A. Eisinberg, P. Pugliese, Exact inversion of a class of Vandermonde matrices, *Proc. SIAM Conf. on Applied Linear Algebra*, Snowbird, June 1994
47. E. Condello, P. Muraca, C. Picardi, P. Pugliese, A VSS theory based regulator for robotic systems with fuzzy parameter adaptation, *Proc. IMACS MATHMOD*, Wien, Austria, February 1994
48. P. Muraca, C. Picardi, P. Pugliese, A modified variable structure regulator for a class of mechanical systems, *Proc. IEEE Conf. on Decision and Control*, San Antonio, TX, December 1993
49. P. Muraca, P. Pugliese, An adaptive filter using a moving sensor for a class of distributed parameter systems, *Proc. IEEE Mediterranean Control Conf.*, Crete, June 1993
50. P. Muraca, P. Pugliese, Parameter estimation via extended Kalman filter for a class of distributed parameter systems, *Proc. IASTED Int. Conf. on Modelling, Identification and Control*, Innsbruck, Austria, February 1993
51. P. Muraca, P. Pugliese, Application of variable structure system theory to a mechanical system, *Proc. IEEE Conf. on Decision and Control*, Tucson, AZ, December 1992
52. L. Carotenuto, P. Muraca, P. Pugliese, G. Raiconi, Recursive sensor allocation for a class of distributed parameter systems, *Proc. IASTED Int. Symp. on Modelling, Simulation and Optimization*, Montreal, Canada, May 1990