# Laura Giarré

## A. PERSONAL DATA

Name: Laura Last name: Giarré

Born: Florence, July 14th, 1960

Citizenship: Italian

Web: http://giarre.wordpress.com

Mail:giarre@ieee.org

#### A.1. EDUCATION

1992 Ph.D. in Systems Engineer - Univ. of Bologna (associated Univ. of Padova and Univ.

Of Florence)

1996 Master degree in Electronic Engineer - Univ. of Florence

#### ——— A.2. WORKING CAREER

2020-2022	Adjunct Professor at NTNU, Department of ICT and Natural Sciences, Alesund, Norway
2016- Today	Full Professor at University of Modena and Reggio Emilia - Engineering Dept. 'Enzo Ferrari', Modena, Italy
2015- 2019	CEO and Cofounder of In.sight (http://in.sight.srl)
2008-2016	Associate Professor at University of Palermo - DEIM
1993-1998	Assistant Professor at Politecnico di Torino, Computer and Control Engineering Dept.
1992-1993	Technical Staff, Univ. Of Florence
1989-1992	Ph. D. Fellow at Univ. of Florence, Computer and Systems Dept.
1988	Fellowship on robotics, Univ. of Florence and AXIS
1987-1988	Researcher at Autostrade Spa.

#### A.3. MAIN RESEARCH TOPICS

Laura Giarré has developed a comprehensive methodology for the robust identification and modeling of systems under unknown but bounded disturbances and model uncertainty. Her innovative work in the  $H_{\infty}$  approach to identification for robust control and model selection is well known and it is widely recognized. Such results are powerful because of the generality and simplicity of the derived methodology. Model selection is based on the quality of the model, measured in terms of prediction capability, and on the size of the uncertainty set. She has applied the set membership identification framework and the analysis and modeling of uncertainty to various innovative application fields, e.g. the Atomic Force Microscope. Laura Giarré expanded the identification theory also to time-varying systems and nonlinear systems. She has solved the problem of Linear Parameter Varying (LPV) identification. This contribution is one of the first available in the literature. It has been employed by researchers in aeronautic, power systems, jet-turbine and also communication applications. She extended classical and robust identification also to a particular class of nonlinear systems such as Hammerstein and Wiener, i.e. cascade systems of static nonlinearities and linear parts applied also to Systems Biology.

A second fundamental contribution of Laura Giarré is in the area of networks and consensus protocols, where she developed distributed linear and nonlinear algorithms for switching networks with noise. Showing her broad and interdisciplinary interests she has applied these results to inventory systems, congestion games, and sensor networks. Her innovative contribution stands in the reformulation of the problem according to a game theoretic approach and in solving the consensus problem in the presence of UBB noise and also in modeling the dissensus paradigm).

In the area of networks, she applied the game theoretical approach also to communication problem and WiFi networks and in smart grid. In particular for Smart Grid, the main contribution regards the application of tele-traffic paradigm to direct control of domestic deferrable loads. Direct control of deferrable loads presents analogies with flow admission control in telecommunication networks:a request for network resources (bandwidth or energy) can be delayed based on the current network status to guarantee some performance metrics. In particular, a family of control schemes that can be easily tuned to achieve the desired trade-off among resources' usage, control overhead, and privacy leakage has been presented. She has worked in smart grid and smart mobility as well, with recent interests in traffic control.

#### B. INDIVIDUAL SCIENTIFIC ACTIVITIES

#### **B.1. AWARDS AND RECOGNITIONS**

Professional society fellowship Senior Member IEEE (from 1999)

Professional society fellowship Member of the IEEE CSS Technical committee on System Biology

(from 2007)

Professional society fellowship Member of the IEEE CSS Technical committee on Identification

and Adaptive Control, (from 2006)

Professional society fellowship Member of the IEEE CSS Technical committee on Smart Grid (dal

2011)

Professional society fellowship Member of the IEEE CSS Technical committee on Healthcare and

Medical Systems, (dal 2014)

#### B.2. RESEARCH PERIODS ABROAD

From (mm/yyyy)	To (mm/yyyy)	Institution/University	Role
08/1996	9/1996	UCSB, Santa Barbara, CA, US	Visiting Professor
01/1999	07/1999	UCSB, Santa Barbara, CA, US	Visiting Professor
11/1999	12/1999	UCSB, Santa Barbara, CA, US	Visiting Professor
02/2006	06/2006	UCSB, Santa Barbara, CA, US	Visiting Professor
02/1997	02/1997	UCSB, Santa Barbara, CA, US	Invited Researcher
7/2000	7/2000	UCSB, Santa Barbara, CA, US	Invited Researcher
10/2001	10/2001	UCSB, Santa Barbara, CA, US	Invited Researcher
12/2003	12/2003	UCSB, Santa Barbara, CA, US	Invited Researcher
2/2002	2/2002	UCSB, Santa Barbara, CA, US	Invited Researcher
06/2011	06/2011	UCSB, Santa Barbara, CA, US	Invited researcher
12/2014	12/2014	UCSB, Santa Barbara, CA, US	Invited researcher
2/2016	2/2016	UCSB, Santa Barbara, CA, US	Invited researcher
11/2002	11/2002	MIT,Cambridge, MA, US	Invited Researcher
10/2003	10/2003	MIT,Cambridge, MA, US	Invited Researcher
10/2005	10/2005	MIT,Cambridge, MA, US	Invited Researcher
11/2007	11/2007	MIT,Cambridge, MA, US	Invited Researcher
11/2009	11/2009	MIT,Cambridge, MA, US	Invited Researcher
12/2010	12/2010	MIT,Cambridge, MA, US	Invited Researcher
12/2011	12/2011	MIT,Cambridge, MA, US	Invited Researcher
2/2015	5/2015	MIT,Cambridge, MA, US	Invited Researcher
9/2015	10/2015	MIT,Cambridge, MA, US	Invited Researcher
11/2003	11/2003	NTNU, Trondheim, NO	Invited Researcher
1/2007	1/2007	NTNU, Trondheim, NO	Invited Researcher
9/2008	9/2008	NTNU, Trondheim, NO	Invited Researcher
9/2009	9/2009	NTNU, Trondheim, NO	Invited Researcher
10/2012	10/2012	NTNU, Trondheim, NO	Invited Researcher
04/2009	04/2009	Inria, Paris, F	Invited Researcher
11/2010	11/2010	Imperial College, London, UK	Invited Researcher
03/2018	03/2018	JKU, Linz, Austria	Invited Professor
09/2018	09/2018	JKU, Linz, Austria	Invited Professor

# — C. COMMON INTEREST SCIENTIFIC ACTIVITIES

### ——— C.1. RESEARCH PROJECTS IN CHARGE

PNRR- Mobility	SPOKE6-	Smart			
•	Commission	!	E	2022-2024	Χ
NEWCont European	rol Commission	J	E	2021-2023	Χ
Dorna European	Commission	ļ	E	2020-2024	X
	Cost action Comission	ı	E	2020-2024	X
•	NTNU- No	rwegian	E	2019-2022	X

Wishful				
European Commission	Е	2017		X
FIC6-Fiware				
(European Commission)	Е	2016		X
ESTIA-EARTH				
(European Commission)	Е	2008/2011		Χ
ESTIA-NET				
(European Commission)	Е	2005/2007		X
CORI				
(Univ. Palermo- MIT)	L	2003/2005	Χ	
CORI				
(Univ. Palermo- UCSB)	L	2000/2002	Χ	
KKK				
(Norwegian Research Council)	0	2007/2009		Χ
KKK				
(Cultural Council of Norway)	0	2007/2009		X
KKK				
(Norwegian Research Council)	0	2007/2009		X
FLAVIA				
(European Commission)	Е	2010/2012		
POR TTB				
(Regional European funds)	N	2012/2014		
PON 04 I-NEXT				
(MIUR)	N	2012-2014		
PON 04 Smart FSE				
(MIUR)	N	2012-2014		
PON 03 NEPTIS				
(MIUR)	N	2014-2016		
PRIN2006		2225 2222		
(MIUR)	N	2006-2008		
PRIN2004		2024 2022		
(MIUR)	N	2004-2002		
PRIN2002	N.I	2002 2024		
(MIUR)	N	2002-2004		

# ——— C.2. MEMBERSHIP IN BOARDS/COMMITTEES/RESEARCH CENTERS ETC.

Tipo	Nome	Ruolo	Periodo (aaaa/aaaa)
Chair	IEEE System Man and Cybernetics Italy section	Chair	2023-2025
Board	IEEE Transaction on Control of Network Systems	Editorial Board	2023-2025
Board	Systems and Control Letters	Editorial Board	1999-2012
Board	IEEE Transaction on Automatic Control	Editorial Board	2012-2015

Board	Fondazione Ampioraggio	Scientific Board	2016-Today
Board	Andrea Bocelli	Advisory Board	2011-Today
Board	Foundation  Mediterranean Control  Association	International Advisory Committee	2013-Today
Board	SIDRA	Member	2016-2022
Program Committe	eeMED 2021	Co-General Chair and Program Chair	2021
Program Committe	eLPVS 2021	Co-Program Chair	2021
Program Committe	eABF Challenges workshop, Expo, Milan	General Chair and Organizer	2015
Program Committe	e Mediterranean  Conference on Control  and Automation, Palermo	General Chair and Organizer	2014
Program Committe	eABF Challenges workshop, MIT, Cambridge	General Chair and Organizer	2013
Program Committe	•	Registration Co-chair	2013
Program Committe	eSIDRA Conference	Vice Chair and Organizer	2013
Program Committe	eABF Challenges workshop, Pisa	General Chair and Organizer	2012
Program Committe	eEmerging Topics in Interconnected Systems: From Biological to Manmade Networks, MIT	co-Chair and co- Organizer	2012
Program Committe	eSING6, Palermo	Vice-Chair	2010
Program Committe	eThe Mohammed Dahleh Symposium	co-Chair and co- Organizer	2002
Program Committe	e Healthinf	Member	2012-Today
Program Committe	elFAC Necsys, Koblenz	Member	2013
Program Committe	elFAC Necsys, Santa Barbara	Member	2012
Scientific Committee	IFORS 2011 Conference	Chair of the Scientific Committee	2010–Today
Program Committe	elFAC Necsys, Annency	Member	2010
Program Committe	elEEE Multi-conference on Systems and Control (MSC201), Tokio	Member	2010
Program Committe	eMELECON, La Valletta	Member	2010

Program CommitteeIEEE Workshop on Health Care Management (WHCM), Venice	Member	2010
Program CommitteeIFAC Necsys, Venezia	Member	2009
Program CommitteeII Conference on Interdisciplinary Education, Athens	Member	2006
Program Committee14th Mediterranean  Conference on Control and Automation	Member	2006
Program CommitteeIEEE Second International Symposium on Communications, Control and Signal Processing, Marrakesh	Member	2006
Program CommitteeIFAC SYSID	Member	2000

# C.3. INVITED LECTURES AND SEMINARS

Date (mm/yyyy)	Туре	Institution/University/Conference
09/2018	Seminar	JKU,Linz, Austria
02/2016	Lecture	UCSB,Santa Barbara, US
04/2015	Lecture	MIT, Cambridge, US
10/2014	Lecture	MIT, Cambridge, US
06/2012	Lecture	MIT, Cambridge, US
06/2012	Lecture	MIT- ETIS
4/2012	Seminar	Univ. Padova
12/2011	Seminar	MIT
06/2011	Lecture	Santa Barbara Workshop, UCSB
11/2010	Seminar	Imperial College
4/2009	Seminar	INRIA,Paris
4/2009	Seminar	INRIA,Paris
1/2009	Seminar	Politecnico Torino
1/2007	Seminar	NTNU
12/2006	Seminar	UCSB
10/2006	Seminar	MIT
9/2006	Seminar	Iowa State University
3/2006	Seminar	University of California at Berkeley
2/2006	Seminar	UCSB
4/2004	Lecture	Workshop Actra, Mondragone
5/2003	Seminar	Univ. Napoli
4/2003	Seminar	Politecnico di Torino
10/2002	Seminar	MIT
7/2002	Lecture	Robust Control Worksgop, Cascais
11/1999	Seminar	Politecnico di Torino
9/1996	Seminar	UCSB
	COMMUNITY AC	TIVITIEC

C.4. OR COMMUNITY ACTIVITIES

Research Board DIEF 2018-today

Organizer of the new curriculum on Cybernetics Engineering

2015

Tipo Periodo (aaaa/aaaa)

CIRA Conference- organization of PH.D. Poster Session

2003-2005

#### C.5. TECHNOLOGY TRANSFER

- o She has been the co-founder and director of the Innovative Startup In.sight (academic spinoff) for the development of innovative technology solutions to help people overcome the limits imposed by their disability, since 2015. The startup consists of 6 members and in 2016 had 5 employees including software developers and communications manager. She managed the European project FIC3 and realized three pilot installations of the Arianna system. The app Arianna is now available on both Google Play and on Apple store. The site is http://in.sight.srl, The stratup won the Startcup Sicilia 2014, the UK Trade and Investments 2015 prize award and the Scintille award in 2016 and participated to many events, exhibitions and awards. It Also received the seal of excellence for participating in a European SME call.
- O Collaboration with eHealthtech, Florence (eHealthTech is a start-up in the Healthcare IT area. The project "Health Level Seven Version 3 Interoperability" (HL7v3i) was realized under the EU grant FSE POR Regione Toscana 2000-2006 Mis. D3 Provincia di Firenze D.D. n. 2836 dated 12/18/2007). The project HL7v3Enabler was financed by Regione Toscana "Docup Ob2 2000-2006 Misura 1.8 Azione 1.8.1 Aiuti alla ricerca industriale e precompetitiva". Active collaboration since 2006.
- Collaboration with TELECOM (sponsor of 4 Ph.D grants) on e-Health problems (detection of Parkinson diseases through signal processing and identification of speech data) since 2012.
- Collaboration with ItalTBS, Trieste (a leading group in e-health and clinical engineering). Active Collaboration since 2012.
- Collaboration with Concast, Udine on localization and sensor networks. Friuli Venezia Gulia Region D.P.R 0260-2007 Grant: 'Magazzino intelligente a logica integrata per lo stoccaggio di materiali siderurgici' Active collaboration 2012-2014.
- Collaboration with Italtel and participation to the FAR project NAIN (Nomadic Access in IP Networks)
   2006-2008

#### C.6. PATENTS

- TAIWAN and China Patent ONLINE TRAINING ENABLED TRAIL FOLLOWING SYSTEM AND METHOD, 2017, pending
- o US Patent Situational Awareness for Visually Impaired People Using Depth-Based Spatial Navigation and Object Identification, filed 10-16-2015 and given serial number 62/242,372, pending.
- o Italian Patent "Sistema di Navigazione per non vedenti", January 2015, number BG2014A000054.

#### D. TEACHING ACTIVITIES

#### D.1. TEACHING IN CHARGE

Number of credits (CFU) per academic year, level, scientific sector (S.S.D.), and language - Last academic years

Academic Year	Bac	helor	Ma	ster	Pŀ	ı.D.	Specializi	ng Master	S.S.D.	Total
(yyyy/yyyy)	Italian	English	Italian	English	Italian	English	Italian	English		
2024/2025				9+6					ING-INF/04	15
2023/2024				9+6					ING-INF/04	15
2022/2023				9+6					ING-INF/04	15
2021/2022				9+6					ING-INF/04	15
2020/2021				9+6					ING-INF/04	15
2019/2020				9+6					ING-INF/04	15
2019/2020				9+5					ING-INF/04	14
2018/2019				9 + 8					ING-INF/04	17
2017/2018				9 + 8					ING-INF/04	17
2015/2016	9								ING-INF/04	18
2013/2014	9		9						ING-INF/04	18
2012/2013	9		9		3				ING-INF/04	21
2011/2012	9		12						ING-INF/04	21
2010/2012			9		3				ING-INF/04	12
2009/2010	9		9						ING-INF/04	18
2008/2009	9		9						ING-INF/04	18
2007/2008	9		9						ING-INF/04	18
2006/2007	9		9						ING-INF/04	18
2005/2006									,	
Total	78		75		6					159

- 1. In 2018 she taught and advance course on Identification and Data Analysis (3 credits) at the University JKU in Linz, Austria and cosupervised a PHD candidate.
- 2. She has been member of the PHD board in ICT in 2018 (UNIMORE) and in the International PHD board in ICT in 2017,2016,2015,2014,2013 and all previous year (UNIPA).

#### D.1. PH.D. SUPERVISION

Number of Ph.D. Laureates that I have supervised

Academic Year	Ph.D. Laureates
2004/2005	1
2012/2013	1
2013/2014	1
2018-2020	2
2022-2025	1
2023-2026	1
Total	7

#### D.2 PH.D. PROGRAMME

She belongs to the local Ph. D program ICT of University of Modena and Reggio Emilia since 2016 and to the national program DAUSY (Politecnico di Bari) since 2022

#### E. OTHER USEFUL INFORMATION

She has been also very active in dissemination of technology for educational purpose; in sustaining women in engineering and academia, in art and technology as an educational tool. Laura Giarré is also active in projects related to e-health and assistive technologies.

Laura Giarrè has been active in projects related to e-health also following scholarships as part of the Smart Health PON and Erasmus Thesis projects using HL7 FHIR standard for the interoperable management of the PHR (Personal Health Record).

She has been getting interested in assistive technology for impaired people. As member of the Advisory board of the ABF she has organized some of its scientific event and she supervises and checks the progress of the project MIT Fifth Sense Project - Providing the function of Sight to blind persons,

which has been granted by the Foundation, to find innovative solutions to help people to overcome the limits imposed by their disabilities. The aim of this Project is to use sensors (sonars and depth camera) to detect obstacles in front of the blind person and to use a wearable vibration belt to provide environment information and increase the blind awareness of the scene. With the startup she developed a system to solve the indoor and outdoor problem, by using CV algorithms running on a smartphone on the video taken by the on board camera and using the vibration of the telephone to provide the information. Both localization and navigation problem has been tackled. Moreover by reading specific QR code or disseminated i-beacon specific information can be given along the path.

Laura has the hobby of writing. She wrote and published six novels and three books of poetry.

#### E.2 INDIVIDUAL PROFILE

Laura Giarré has worked in the Control Systems field since 1989, and she has been a full professor since 2016. On its way, characterized by a strong internationalization, she has developed a wide network of international collaborations, mostly multidisciplinary, spending a lot of time abroad, organizing international conferences, and workshops, giving seminars, and invited graduate schools in order to broaden her teaching and research horizons. Her research interests have always tried to have a technological/application aspect and a territorial impact regarding technology transfer. Her emphasis on teaching and scientific dissemination led her to also try to use innovative tools, such as blogs, since 2005.

#### F. PUBLICATIONS

#### INTERNATIONAL JOURNAL

- [J47] Gaetan, E., Giarre, L., Falcone, P. Scenario-Tree Model Predictive Control for Vehicle Interactions in Highway Setting. IEEE Control Systems Letters, 2024
- [J46] Heiker, C.-J., Gaetan, E., Giarré, L., Falcone, P. Repulsive Markovian models for opinion dynamics. Systems and Control, 2024, 185, 105720
- [J45] İşbitirici, A., Giarré, L., Xu, W., Falcone, P. LSTM-Based Virtual Load Sensor for Heavy-Duty Vehicles Sensors, 2024, 24(1), 226
- [J44] İşbitirici, A.; Giarré, L.; Falcone, P. Mixed Learning- and Model-Based Mass Estimation of Heavy Vehicles. Vehicles 2024, 6, 765-780. https://doi.org/10.3390/vehicles6020036
- [J43] Adelberger, D., Giarré, L., Ohtsuka, T., del Re, L. Optimal plug-and-control of unknown nonlinear systems(Article)(Open Access) Adelberger, D., Giarré, L., Ohtsuka, T., del Re, L. European Journal of Control Volume 64, March 2022, Article number 100606
- [J42] M. Dotoli, L. Giarré, The 29th Mediterranean Conference on Control and Automation, IEEE Control Systems, (2022), 42(1), pp. 137–139
- [J41] Sciutti et al, Making an Opportunity Out of a Crisis: The Inclusive Approach of the Italian Robotics Community, IEEE Robotics & Automation Magazine, 28,4 (2021)
- [J40] Daniel Adelberger, Laura Giarre, Toshiyuki Ohtsuka, Luigi del Re, Optimal Plug-and-Control of Unknown Nonlinear Systems, European Journal of Control (2022), doi: https://doi.org/10.1016/j.ejcon.2021.12.001
- [J39] Chen-Lung, Lu; Zi-Yan, Liu; Jui-Te, Huang; Ching-I, Huang; Bo-Hui, Wang; Chen, Yi; Nien-Hsin, Wu; Hsueh-Cheng Nick Wang, ; Giarré, Laura; Pei-Yi, Kuo, Assistive Navigation using Deep Reinforcement Learning Guiding Robot with UWB/Voice Beacons and Semantic Feedbacks for Blind and Visually Impaired People In: FRONTIERS IN ROBOTICS AND AI. ISSN 2296-9144, 2021.
- [J38] Erratum: Consensus for networks with unknown but bounded disturbances (SIAM Journal on Control and Optimization (2009) 48 (1756-1770) DOI: 10.1137/060678786). DOI:10.1137/21M139342X. pp.1757-1757. In SIAM JOURNAL ON CONTROL AND OPTIMIZATION ISSN:0363-0129 vol. 59 (2)
- [J37] Alice Lo Valvo, ; Daniele, Croce; Domenico, Garlisi; Fabrizio, Giuliano; Giarré, Laura; Ilenia, Tinnirello. A navigation and augmented reality system for visually impaired people In: SENSORS. ISSN 1424-8220. 21:9, 2021.
- [J36] Daniele, Croce; Fabrizio, Giuliano; Ilenia, Tinnirello; Giarré, Laura. -Privacy-preserving Overgrid: Secure Data Collection for the Smart Grid. In: SENSORS. ISSN 1424-8220. 20:8, 2020.
- [J35] Patrick, Schrlang; Giarré, Laura On optimal design of experiments for static polynomial approximation of nonlinear systems SYSTEMS & CONTROL LETTERS. ISSN 0167-6911. 143(2020), pp. 1-10.
- [J34] D. Croce et al., "An Indoor and Outdoor Navigation System for Visually Impaired People," in IEEE Access, vol. 7, pp. 170406-170418, 2019. doi: 10.1109/ACCESS.2019.2955046
- [J33] Teletraffic engineering for direct load control in smart grids G Neglia, L Giarré, I Tinnirello, G Di Bella Sustainable Energy, Grids and Networks 16, 167-176, 2018.
- [J32] Mixed  $\ell_2$  and  $\ell_1$ -norm regularization for adaptive detrending with ARMA modeling L Giarré, F Argenti Journal of the Franklin Institute 355 (3), 1493-1511, 2018.
- [J31] Ilenia Tinnirello, Giovanni Neglia, Laura Giarré, Giuseppe Di Bella, Alain Jean-Marie, and Mariano Giuseppe Ippolito Large Scale Control of Deferrable Domestic Loads in Smart Grids *IEEE Trans on Smart Grid*, 2016.
- [J30] D. Materassi, M. Salapaka, G. Innocenti, L. Giarré. Model Identification of a Network as Compressing Sensing, *Systems and Control Letters*, Volume 62, Issue 8, Pages 664-672, 2013.

- [J29] D. Bauso, F.Blanchini, L. Giarré, R. Pesenti, Decentralized solution for the constrained minimum norm flow, Automatica, Volume 49, Issue 7, Pages 2206-2212, 2013.
- [J28] R. Calamai, L. Giarré, Enabling Primary and Specialist Care Interoperability through HL7v3 CDA Rel.2 and Chronic Care Model: an Italian case study, IEEE Trans on System Man and Cybernetics, part A, vol 42, n.6, 1364–1384, ISSN: 1083-4427, doi: 10.1109/TSMCA.2012.2210205, 2012
- [J27] D. Bauso, L. Giarré, R. Pesenti, Quantized Dissensus in Switching Networks with death and duplication of nodes, *IEEE Transaction on Automatic Control*, vol. 57, p. 783-788, ISSN: 0018-9286, doi: 10.1109/TAC.2011.2167810, 2012
- [J26] I. Tinnirello, L. Giarré, G. Neglia. MAC design for WiFi infrastructure networks: a game theoretic approach. *IEEE Transaction on Wireless Communication*, vol. 10, p. 2510-2522, ISSN: 1536-1276, doi: 10.1109/TWC.2011.062011.100193, 2011.
- [J25] D. Bauso, L. Giarré, R. Pesenti, Robust control of uncertain multi-inventory systems via Linear Matrix Inequality, *International Journal of Control*, August, 83(8), 1723-1740, ISSN: 0020-7179, doi: 10.1080/00207179.2010.491131, 2010.
- [J24] L. Giarré, G. Neglia, I. Tinnirello. Medium Access in WiFi Networks: Strategies of Selfish Nodes. IEEE Signal Processing Magazine (SPM), 26(5),124-127, ISSN: 1053-5888, 2009.
- [J23] P. Falugi, L. Giarré, Set Membership Identification of nonlinear positive models for biological systems. *Systems and Control Letters*, 58(7),529-539, ISSN: 0167-6911, doi: http://dx.doi.org/10.1016/j.sysconle.2009.03.005 2009.
- [J22] D. Bauso, L. Giarré, R. Pesenti, Consensus for networks with unknown but bounded disturbances. SIAM JOURNAL ON CONTROL AND OPTIMIZATION, 48(3); 1756-1770, ISSN: 0363-0129, doi: 10.1137/060678786, 2009
- [J21] D. Bauso, L. Giarré, R. Pesenti. Distributed Consensus in Noncooperative Inventory Games. EUROPEAN JOURNAL OF OPERATIONAL RESEARCH; 192(3), 866-878, doi:10.1016/j.ejor.2007.10.012,2009.
- [J20] D. Bauso, L. Giarré, R. Pesenti. Consensus in Noncooperative Dynamic Games: a Multi-Retailer Inventory Application. IEEE TRANSACTIONS ON AUTOMATIC CONTROL, 53(4), 998-1003, ISSN: 0018-9286, doi: 10.1109/TAC.2008.919546, 2008.
- [J19] D. Bauso, L. Giarré, R. Pesenti. Nonlinear protocols for optimal distributed consensus in networks of dynamic agents. *Systems and Control Letters*, 915-928, 55(11), ISSN: 0167-6911, doi: 10.1016/j.sysconle.2006.06.005, 2006.
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- [J16] M. Basso, L Giarré, S. Groppi, G.Zappa. NARX Models of an Industrial Power Plant Gas Turbine IEEE Trans on Control Technology, 13(4), 599-605, 2005.
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- [J14] B. Bamieh and L. Giarré. Identification of Linear Parameter Varying Models. *International Journal of Robust and Nonlinear Control*, 12(9),841-853, 2002.
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- [J12] L. Giarré and M. Milanese. SM identification of approximating models for  $H_{\infty}$  robust control. International Journal of Robust and Nonlinear Control, 9(6), 319–332, 1999.
- [J11] L. Giarré, B. Kacewicz, and M. Milanese. Model quality evaluation in set membership identification. *Automatica*. 33(6), 1133-1139, 1997.
- [J10] L. Giarré and M. Milanese. Model quality evaluation in  $H_2$  identification. *IEEE Transaction on Automatic Control.* 42(5), 691-698, 1997.

- [J9] L. Giarré, M. Milanese, and M. Taragna.  $H_{\infty}$  identification and model quality evaluation. *IEEE Transaction on Automatic Control.* 42(2), 188-199, 1997.
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