

PROGRAM DAILY

Wednesday, JUNE 28, 2006

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| 9,00/10,00 | WP WP | Plenary Aerospace Controls: The Way Forward | Banda, S. S |
| | WM1 | Advances in Unmanned Aerial Vehicle Technology, With Wireless Sensor Network Applications Aerei | |
| | | Invited Session. Organizers: G. Vachtsevanos and F.L. Lewis | |
| 10,30/10,50 | WM1-1 | Dynamic Localization of Air-Ground Wireless Sensor Networks | Dang, P.; Lewis, F. L.; Popa, O. D. |
| 10,50/11,10 | WM1-2 | Automated Process for Unmanned Aerial Systems Controller Implementation using MATLAB | Ernst, D.; Valavanis, K.; Craighead, J. |
| 11,10/11,30 | WM1-3 | Target Tracking with Unmanned Aerial Vehicles: From Single to Swarm Vehicle Autonomy and Intelligence | Ludington, B.; Reimann, J.; Vachtsevanos, G.; Barlas, I. |
| 11,30/11,50 | WM1-4 | Modeling and Control System Design for a UAV Helicopter | Cai, G.; Chen, B. M.; Peng, K.; Dong, M.; Lee, T. H. |
| 11,50/12,10 | WM1-5 | Adaptive Neural Network Control and Wireless Sensor Network-based Localization for UAV Formation | Wu, H.; Jagannathan, S. |
| 12,10/12,30 | WM1-6 | Decentralized Formation Tracking of Multi-vehicle Systems via Nonlinear Consensus | Fang, L.; Antsaklis, P. |
| | WM2 | Control systems 1 | |
| 10,30/10,50 | WM2-1 | Combining MPC and LD Analysis in Supply Chain Inventory Control Problem | Pennesi, P.; Conte, G.; Paschalidis, I. C. |
| 10,50/11,10 | WM2-2 | Robust Model Predictive Control for Controlling Fast Vehicle Dynamics | Péni, T.; Bokor, J. |
| 11,10/11,30 | WM2-3 | A New Decision Making Method Based on Fuzzificated Dempster Shafer Theory, A Sample Application in Medicine | Asheghan, M.; Lucas, C.; Kharazm, P. |
| 11,30/11,50 | WM2-4 | Automated Sequential Search for Weak Radiation Sources | Kumar, A.; Tanner, H. G. ; Klimenko, A. V.; Borozdin, K. N. ; Priedhorsky, W. C. |
| 11,50/12,10 | WM2-5 | A State-space Approach to Adaptive Rejection of Harmonic Sensor Disturbances in Discrete-time Systems | Fiorentini, L.; Serrani, A.; Longhi, S. |
| 12,10/12,30 | WM2-6 | Systems with Multiplicative Noise: Stationary Output-feedback Tracking with Preview | Gershon, E.; Shaked, U. |
| | WM3 | Planning and Intelligent Control Techniques for Unstructured Robotic Environments: The research program PICTURE | |
| | | Invited Session. Organizer: S. Chiaverini | |

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| 10,30/10,50 | WM3-1 | Experiments of Formation Control with Collisions Avoidance using the Null-Space-Based Behavioral Control | Antonelli, G.; Chiaverini, S.; Arrichiello, F. |
| 10,50/11,10 | WM3-2 | Cooperative On-line Planning for Adaptative Map Building in Environmental Applications | Caiti, A.; Munafò, A.; Viviani, R. |
| 11,10/11,30 | WM3-3 | Pose Recovery for a Mobile Manipulator using a Particle Filter | Gasparri, A.; Panzieri, S.; Pascucci, F.; Ulivi, G. |
| 11,30/11,50 | WM3-4 | A Direction Dependent Parametric Model for the Vacuum Adhesion System of the Alicia II Robot | De Francisci, S.; Longo, D.; Muscato, G. |
| 11,50/12,10 | WM3-5 | Acoustic Mapping and Localization of an ROV | Zanoli, S. M.; Conte, G.; Gambella, L.; Scaradozzi, D. |
| 12,10/12,30 | WM3-6 | Distributed Control and Coordination Technique for Complex Robotic Systems | Casalino, G.; Turetta, A.; Sorbara, A. |
| | WM4 | Topics in systems identification | |
| 10,30/10,50 | WM4-1 | Algebraic Methods for Function Reconstruction: Application to System Identification | Djaferis, T. E. |
| 10,50/11,10 | WM4-2 | Delay System Identification Applied to the Longitudinal Flight of an Aircraft through a Vertical Gust | Veysset, F.; Belkoura, L.; Coton, P.; Richard, J. P. |
| 11,10/11,30 | WM4-3 | Verification of the Identifiability Property for Nonlinear Control Systems with Computer Algebra System Mathematica | Tabun, J.; Nömm, S.; Kotta, Ü.; Moog, C. H. |
| 11,30/11,50 | WM4-4 | Identification of Stochastic Systems Under Multiple Operating Conditions: The Vector Dependent FP-ARX Parametrization | Kopsaftopoulos, F. P.; Fassois, S. D. |
| 11,50/12,10 | WM4-5 | Adaptive Constrained Control of Uncertain ARMA-Systems Based on Set Membership Identification | Nikolakopoulos, G.; Dritsas, L.; Tzes, A.; Lygeros, J. |
| 12,10/12,30 | WM4-6 | Integrated Uncertainty Model Identification and Robust Control Synthesis for Linear Time.invariant Systems | Rödönyi, G.; Bokor, J. |
| | WEA1 | Aircrafts and aerial vehicles | |
| 14,30/14,50 | WEA1-1 | Adaptive Control Using Neural Network Augmentation for a Modified F-15 Aircraft | Burken, J.; Williams-Hayes, P.; Kaneshige, J. T.; Stachowiak, S. J. |
| 14,50/15,10 | WEA1-2 | Nonlinear Integral Minimum Variance-Like Control with Application to an Aircraft System | Dimogianopoulos, D.; Hios, J.; Fassois, S. |
| 15,10/15,30 | WEA1-3 | Feature Matching Algorithms for Machine Vision Based Autonomous Aerial Refueling | Fravolini, M. L.; Brunori, V.; Ficola, A.; La Cava, M.; Campa, G. |

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| 15,30/15,50 | WEA1-4 | Comparison of Different Neural Augmentations for the Fault Tolerant Control Laws of the WVU YF-22 Model Aircraft | Perhinschi, M. G.; Burken, J.; Campa, G. |
| 15,50/16,10 | WEA1-5 | Vision-Based Autonomous Probe and Drogue Aerial Refueling | Mati, R.; Pollini, L.; Lunghi, A.; Innocenti, M.; Campa, G. |
| | WEA2 | Observation and filtering | |
| 14,30/14,50 | WEA2-1 | A Finite Time Unknown Input Observer for Linear Systems | Raff, T.; Lachner, F.; Allgower, F. |
| 14,50/15,10 | WEA2-2 | An Unknown Input Observer for Singular Time-Delay Systems | Perdon, A. M.; Anderlucci, M. |
| 15,10/15,30 | WEA2-3 | Particle Filtering within a Set-Membership Approach to State Estimation | Balestrino, A.; Caiti, A.; Crisostomi, E. |
| 15,30/15,50 | WEA2-4 | A New Global Localization Algorithm Based on Feature Extraction and Particle Filter | Caltabiano, D.; Muscato, G.; Sessa, S. |
| 15,50/16,10 | WEA2-5 | Impulsive Noise in Railway Automated Monitoring: a Recursive Filtering Approach | Cavallo, M.; Naso, D.; Scalera, A.; Turchiano, B.; Aurisicchio, G. |
| | WEA3 | Infinite Dimensional Control Systems Invited Session. Organizers: R. Rabah and G. Sklyar | |
| 14,30/14,50 | WEA3-1 | Boundary Controllability and Inverse Problems for the Wave Equation on Graphs | Avdonin, S.; Nurtazina, K.; Sheronova, T. |
| 14,50/15,10 | WEA3-2 | A Quadratic Regulator Problem Related to Identification Problems and Singular Systems | Favini, A.; Pandolfi, L. |
| 15,10/15,30 | WEA3-3 | An Overview on Proper Concepts of Infinite Dimensional Systems | El Jai, A. |
| 15,30/15,50 | WEA3-4 | On Strong Regular Stabilizability for Linear Neutral Type Systems | Rabah, R.; Sklyar, G. M.; Rezounenko, A. V. |
| 15,50/16,10 | WEA3-5 | On Smoothness of End States in the Problem of Controllability of a Rotating Beam | Wozniak, J. |
| | WEA4 | Robotics 1 | |
| 14,30/14,50 | WEA4-1 | A Neuro-Adaptive Controller for the Force/Position Tracking of a Robot Manipulator under Model Uncertainties in Compliance and Friction | Karayiannidis, Y.; Rovithakis, G.; Doulgeri, Z. |
| 14,50/15,10 | WEA4-2 | Using the Function Block Model for Robotic Arm Motion Control | Doukas, G.; Thramboulidis, K.; Koveos, Y. |
| 15,10/15,30 | WEA4-3 | A Luenberger-style Observer for Robot Manipulators with Position Measurements | Celani, F. |
| 15,30/15,50 | WEA4-4 | Development of a Nanohandling Robot Station for Nanocharacterization by an AFM Probe | Fatikow, S.; Kray, S.; Eichhorn, V.; Tautz, S. |
| 15,50/16,10 | WEA4-5 | Static and dynamic modeling of thermal microgripper | Mayyas, M.; Shiakolas, P. S.; Lee, W. H.; Popa, D.; Stephanou, H. ; |

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| | WLA1 | Control of suspension systems | |
| 16,40/17,00 | WLA1-1 | Adaptive Predictive Control of an Electromagnetic Suspension System with LOLIMOT Identifier | Mohammadzaman, I.; Sarabi Jamab, A. |
| 17,00/17,20 | WLA1-2 | Constrained Optimal Control: an Application to Semiactive Suspension Systems | Paschedag, T.; Giua, A.; Seatzu, C. |
| 17,20/17,40 | WLA1-3 | Robust Model Reference Adaptive Control of Active Suspension System | Maleki, N.; Sedigh, A. K.; Labibi, B. |
| | WLA2 | Switching and hybrid systems | |
| 16,40/17,00 | WLA2-1 | Complexity and Size Analysis of Hybrid System Modeling with Mixed Logical Dynamical Approach | Mahboubi, H.; Habibi, J.; Moshiri, B.; Khaki-Sedigh, A. |
| 17,00/17,20 | WLA2-2 | Switching Solution for Multiple-models Control Systems | Lupu, C.; Popescu, D.; Ciubotaru, B.; Petrescu, C.; Florea, G. |
| 17,20/17,40 | WLA2-3 | Fuzzy Model Based Nonlinear Systems Stabilisation using Switching Control | Boumechraz, M.; Benmahammed, K. |
| 17,40/18,00 | WLA2-4 | Multiple Model Control using Neural Networks for a Remotely Operated Vehicle | Cavalletti, M.; Ippoliti, G.; Longhi, S. |
| | WLA3 | Stability and stabilization problems | |
| 14,30/14,50 | WLA3-1 | Stability Monitoring and Analysis of Learning in Adaptive Systems | Yerramalla, S.; Cukic, B.; Campa, G.; Napolitano, M. R.; Fuller, E. |
| 14,50/15,10 | WLA3-2 | Stability of One-Dimensional Spatially Invariant Arrays Perturbed by White Noise | Fang, H.; Antsaklis, P. J. |
| 15,10/15,30 | WLA3-3 | An Eigenvalue Perturbation Result for Stability Bound with Respect to Biased Structured Perturbations | Jetto, L.; Orsini, V. |
| 15,30/15,50 | WLA3-4 | Adaptive Multimodel Estimation for Synthesis of a Robust Stabilizer Under Imperfect Knowledge of the Plant Delay | Alonso-Quesada, S.; De la Sen, M.; Ibeas, A. |
| | WLA4 | Robotics 2 | |
| 16,40/17,00 | WLA4-1 | Further Results on Stability of a Rigid Robot with Model Uncertainty and Time-delay in Feedback | Ailon, A.; Ahn, B.H. |
| 17,00/17,20 | WLA4-2 | Planning Optimal Motions for a DELTA Parallel Robot | Afroun, M.; Chettibi, T.; Hanchi, S. |
| 17,20/17,40 | WLA4-3 | Hinfinity Control of a SCARA Robot using Polytopic LPV Approach | Souley Ali, H.; Boutat-Baddas, L.; Becis-Aubry, Y.; Darouach, M. |

Thursday, JUNE 29, 2006

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| 9,00/10,00 | TP | Plenary | |
| | TP | Systems Biology of Group Decision Making | Passino, K. M. |
| | TM1 | Swarm and formation control | |
| 10,30/10,50 | TM1-1 | Swarm Formation Control with Potential Fields Formed by Bivariate Normal Functions | Barnes, L.; Alvis, W.; Fields, M.; Valavanis, K.; Moreno, W. |

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| 10,50/11,10 | TM1-2 | Distributed Control of Autonomous Swarms by using Parallel Simulated Annealing Algorithm | Xi, W.; Baras, J. S. |
| 11,10/11,30 | TM1-3 | Embedded Model Control Application to Drag-Free and Satellite-to-Satellite Tracking | Massotti, L.; Canuto, E.; Silvestrin, P. |
| 11,30/11,50 | TM1-4 | Autonomous Formation Flight: Hardware Development | Gu, Y.; Seanor, B.; Campa, G.; Napolitano, M. R.; Rowe, L.; Gururajan, S. |
| 11,50/12,10 | TM1-5 | 3-Aircraft Formation Flight Experiment | Seanor, B.; Gu, Y.; Napolitano, M. R.; Campa, G.; Gururajan, S.; Rowe, L. |
| 12,10/12,30 | TM1-6 | Formation control laws for autonomous flight vehicles | Chiaromonti, M.; Giulietti, F.; Mengali, G. |
| | TM2 | Neural networks and applications | |
| 10,30/10,50 | TM2-1 | Recurrent High Order Neural Networks for Identification of the EGFR Signaling Pathway | Christodoulou, M. A.; Zarkogianni, D. |
| 10,50/11,10 | TM2-2 | Neural Network Models for Prediction of Steady-State and Dynamic Behavior of MAPK Cascade | Christodoulou, M. A.; Iliopoulos, T. N. |
| 11,10/11,30 | TM2-3 | A Neural Network Solution For Fixed-Final Time Optimal Control of Nonlinear Systems | Cheng, T.; Lewis, F. L.; Abu-Khalaf, M. |
| 11,30/11,50 | TM2-4 | Design of Dynamic System Fault-Tolerant Control using IMM Estimation and RBF Neural Network | Wang, X.; Syrmos, V. |
| 11,50/12,10 | TM2-5 | A Neural Network Based Sensor Validation Scheme for Heavy-Duty Diesel Engines | Campa, G.; Krishnamurty, M.; Gautam, M.; Napolitano, M. R.; Perhisch, M. |
| 12,10/12,30 | TM2-6 | Stable Nonlinear Receding Horizon Regulator using RBF Neural Network Models | Ahmida, Z.; Charef, A.; Becerra, M. |
| | TM3 | Mobile robots | |
| 10,30/10,50 | TM3-1 | Mobile Robot Navigation using Sonar and Range Measurements from Uncalibrated Cameras | Tsalatsanis, A.; Valavanis, K.; Tsourveloudis, N. |
| 10,50/11,10 | TM3-2 | On Improving Endurance of Unmanned Ground Vehicles: The ATRV-Jr Case Study | Ioannou, S.; Dalamagkidis, K.; Valavanis, K. P.; Stefanakos, E. K.; Wiley, P. H. |
| 11,10/11,30 | TM3-3 | SARA: a Flexible Framework for Rapid Prototyping of Mobile Robotics Applications | Pagnottelli, S.; Valigi, P. |
| 11,30/11,50 | TM3-4 | Optimal Motion Planning for the Rendezvous of Nonholonomic Vehicles Under Disturbances | Estrela da Silva, J.; Borges de Sousa, J. |
| 11,50/12,10 | TM3-5 | A Framework For Simulations and Tests of Mobile Robotics Tasks | Frontoni, E.; Mancini, A.; Caponetti, F.; Zingaretti, P. |
| 12,10/12,30 | TM3-6 | A Sensor Based Homing Strategy for Autonomous Underwater Vehicles | Silvestre, C.; Batista, P.; Oliveira, P. |
| | TM4 | Control systems 2 | |
| 10,30/10,50 | TM4-1 | The Control Problem: a Framework for Holistic Design | Balaguer, P.; Vilanova, R.; Moreno, R. |

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| 10,50/11,10 | TM4-2 | Multisensory Human Postural Control: Neurological and Engineering Perspectives | Tahboub, K. A.; Mergner, T.; Ament, C. |
| 11,10/11,30 | TM4-3 | Fuzzy Controller Design Based on the Phase Plane Isoclines | Bogdan, S.; Kovacic, Z. |
| 11,30/11,50 | TM4-4 | Control for Triple Integrator with Constrained Input | Tapak, P.; Bistak, P.; Huba, M. |
| 11,50/12,10 | TM4-5 | Actuator Failures Compensation: a Sliding Mode Control Approach | Corradini, M. L.; Orlando, G.; Parlangeli, G. |
| 12,10/12,30 | TM4-6 | Efficient Sampling for Keeping Track of an Ornstein-Uhlenbeck Process | Baras, J. S.; Rabi, M.; Moustakides, G. |
| | TM5 | Process control 1 | |
| 10,30/10,50 | TM5-1 | A Fuzzy Cognitive Network Based Control Scheme for an Anaerobic Digestion Process | Kottas, T.; Boutalis, Y.; Diamantis, V.; Kosmidou, O.; Aivasidis, A. |
| 10,50/11,10 | TM5-2 | Optimal Monitoring and Management of a Water Storage with Pollution Constraints | Ioslovich, I.; Gutman, P. O. |
| 11,10/11,30 | TM5-3 | Performance Indices and Tuning in Process Control | Landi, A.; Balestrino, A.; Medaglia, M.; Satler, M. |
| 11,30/11,50 | TM5-4 | Reduced Order Controller for The Alstom Gasifier Plant | Yousefi, A.; Lohmann, B. |
| 11,50/12,10 | TM5-5 | Control of a Continuous-time Stirred Tank Reactor via Robust Static Output Feedback | Bakosova, M.; Puna, D.; Meszaros, A. |
| 12,10/12,30 | TM5-6 | Comparing Regressors Selection Methods for the Soft Sensor Design of a Sulfur Recovery Unit | Fortuna, L.; Graziani, S.; Xibilia, M. G.; Napoli, G. |
| | TEA1 | Control systems 3 | |
| 14,30/14,50 | TEA1-1 | Recent Advances on Control Theory under Communication Constraints: A Survey | Lopez, I.; Abdallah, C. T. |
| 14,50/15,10 | TEA1-2 | A Neuro-Adaptive TCP-like Protocol with Cost Constraints | Houmkozis, C. H.; Rovithakis, G. A. |
| 15,10/15,30 | TEA1-3 | Robust Congestion Control in Networks with Multiple Congested Nodes | Jahromi, K. K.; Nikravesh, S. K. Y.; Shafee, M. |
| 15,30/15,50 | TEA1-4 | Model-Based Control with Intermittent Feedback | Estrada, T.; Lin, H.; Antsaklis, P. J. |
| 15,50/16,10 | TEA1-5 | Adaptive Control in the Presence of Outliers | Lemos, J. M. |
| | TEA2 | Distributed, networked and teleoperated systems | |
| 14,30/14,50 | TEA2-1 | Convergence Rate of Quantization Error in Networked Control Systems | Fang, H.; Antsaklis, P. J. |
| 14,50/15,10 | TEA2-2 | Event Source Position Estimation using Sensor Networks | Michaelides, M. P.; Panayiotou, C. G. |
| 15,10/15,30 | TEA2-3 | Constrained Finite Time Control of Networked Systems with Uncertain Delays | Dritsas, L.; Nikolakopoulos, G.; Tzes, A. |
| 15,30/15,50 | TEA2-4 | Theoretical and Experimental Overview of Bilateral Teleoperation Control Laws | Marcassus, N.; Chriette, A.; Gautier, M. |

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| 15,50/16,10 | TEA2-5 | Design of Distributed Controllers with Constrained and Noisy Links | Voulgaris, P. G.; Jiang, S. |
| | TEA3 | Aircrafts and aerial vehicles 2 | |
| 14,30/14,50 | TEA3-1 | A Mobile Landing Platform for Miniature Vertical Take-Off and Landing Vehicles | Dalamagkidis, K.; Ioannou, S.; Valavanis, K.; Stefanakos, E. |
| 14,50/15,10 | TEA3-2 | A Simple Control Scheme for Mini Unmanned Aerial Vehicles | Ficola, A.; Fravolini, M. L.; Brunori, V.; La Cava, M. |
| 15,10/15,30 | TEA3-3 | A Comparison of Pose Estimation Algorithms for Machine Vision Based Aerial Refueling for UAVs | Campa, G.; Mammarella, M.; Napolitano, M. R.; Fravolini, M. L.; Pollini, L.; Stolarik, B. |
| 15,30/15,50 | TEA3-4 | Modeling and analysis of a reduced-complexity ducted MAV | Marconi, L.; Naldi, R.; Sala, A. |
| 15,50/16,10 | TEA3-5 | Optimal Path and Tracking Control of an Autonomous VTOL Aircraft | Ailon, A. |
| | TEA4 | Process control 2 | |
| 14,30/14,50 | TEA4-1 | Method for Optimal Control Calculation of a Fed-batch Fermentation Process | Tzoneva, R. ; |
| 14,50/15,10 | TEA4-2 | Standard Linux for Embedded Real-time Manufacturing Control Systems | Bruzzone, G.; Caccia, M.; Bertone, A.; Ravera, G. |
| 15,10/15,30 | TEA4-3 | Minimum Startup Time Control of an Ion Exchange Process Used for Water Desalination | Dube, M. N.; Tzoneva, R. |
| 15,30/15,50 | TEA4-4 | Virtual Instruments for the What-if Analysis of a Process for Pollution Minimization in an Industrial Application | Fortuna, L.; Graziani, S.; Xibilia, M. G.; Napoli, G. |
| 15,50/16,10 | TEA4-5 | Temperature Modelling of a Biochip for DNA Analysis | Costa, B. A.; Lemos, J. M.; Piedade, M. S.; Sousa, L.; Almeida, T.; Germano, J.; Freitas, P. Ferreira, H. |
| | TLA1 | Control of electro/mechanical systems | |
| 16,40/17,00 | TLA1-1 | Synchronization of Mechanical Systems with a New Van der Pol Chaotic Oscillator | Benitez, S.; Aguilar, L. T.; Acho, L. |
| 17,00/17,20 | TLA1-2 | Finite-Time Control of Linear Mechanical Systems Subject to Non-smooth Impacts | Abdallah, C. T.; Potini, A.; Tornambe, A.; Menini, L.; Dorato, P. |
| 17,20/17,40 | TLA1-3 | Non-Identifier-Based Adaptive Speed Control for a Two Mass Flexible Servo System: Consideration of Stability and Steady State Accuracy | Schuster, H.; Westermaier, C.; Schröder, D. |
| 17,40/18,00 | TLA1-4 | Adaptive Pulse Width/Phase Modulated Controller for a High Frequency Active Electro-Hydraulic Pump System | Koveos, Y.; Tzes, A.; Kolyvas, E.; Tshalis, D. |
| | TLA2 | Fault detection | |
| 16,40/17,00 | TLA2-1 | Robust Detection of Incipient Faults: an Active Approach | Nikoukhah, R.; Campbell, S. L. |

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| 17,00/17,20 | TLA2-2 | Fault Detection and Isolation in Aircraft Systems using Stochastic Nonlinear Modelling of Flight Data Dependencies | Dimogiannopoulos, D. G.; Hios, J.; Fassois, S. D. |
| 17,20/17,40 | TLA2-3 | Applicability of Standard Formulation Parametric Fault Detection Methods | Felicio, P.; Lourtie, P. |
| 17,40/18,00 | TLA2-4 | LPV Fault Detection of Glucose-insulin System | Kovacs, L.; Kulcsar, B.; Bokor, J.; Benyo, Z. |
| | TLA3 | Motor and field control control | |
| 16,40/17,00 | TLA3-1 | Direct Field-Oriented Control using Backstepping Technique for Induction Motor Speed Control | Bousserhane, I. K.; Hazzab, A.; Rahli, M.; Kamli, M.; Mazari, B. |
| 17,00/17,20 | TLA3-2 | Control of Switched Reluctance Motor Containing a Linear Model | Ayaz, M.; Yildiz, A. B. |
| 17,20/17,40 | TLA3-3 | Global Adaptive Learning Control for Current-fed Induction Motor Servo Drives | Marino, R.; Tomei, P.; Verrelli, C. M. |
| 17,40/18,00 | TLA3-4 | On Three-Phase Six-Switches Voltage Source Inverter: A 150° Conduction Mode | Saied, M. H.; Mostafa, M. Z.; Abdel-Moneim, T. M.; Yousef, H. A. |
| | TLA4 | Appliances and Home Automation | |
| 16,40/17,00 | TLA4-1 | Combustion Control in Domestic Boilers using an Oxygen Sensor | Conte, G.; Cesaretti, M.; Scaradozzi, D. |
| 17,00/17,20 | TLA4-2 | Integration of Digital Appliances in Demand Side Management Systems | Cascio, V.; Bernasconi, S.; Sauba, G.; Mendigutxia, J.; Kung, A. |
| 17,20/17,40 | TLA4-3 | Modelling and Design of the Half-bridge Resonant Inverter for Induction Cooking Application | Beato, A.; Bocchiola, C.; Frattesi, S. |
| 17,40/18,00 | TLA4-4 | A Modern Approach to the Automatic Design and Testing of Domestic Appliances | Andrenacci, L.; Frattesi, S.; Pasqualini, L.; Starna, L. |

Friday, JUNE 30, 2006

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| 9,00/10,00 | FP FP | Control Oriented Models & Feedback Design in Fluid Flow Systems: A Review | Plenary Tadmor, G.; Noack, B. R.; Morzy'nski, M. |
| | FM1 | Mobile robots and multi-robot systems | |
| 10,30/10,50 | FM1-1 | Experimental Validation of a Real-Time Sensor-Based Fault Detection and Isolation System for Unmanned Ground Vehicles | Monteriù, A.; Asthana, P.; Valavanis, K.; Longhi, S. |
| 10,50/11,10 | FM1-2 | Deadlock Free Dynamic Resource Assignment in Multi-robot Systems with Multiple Missions: a Matrix-based Approach | Ballal, P.; Giordano, V.; Lewis, F. |
| 11,10/11,30 | FM1-3 | Decentralized Cohesive Motion Control of Multi-Agent Formations | Sandeep, S.; Fidan, B.; Yu, C. |
| 11,30/11,50 | FM1-4 | Sample-Based HZD Control for Robustness and Slope Invariance of Planar Passive Bipedal Gaits | Westervelt, E. R.; Morris, B.; Farrell, K. D. |

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| 11,50/12,10 | FM1-5 | Observer-based Control for Absolute Orientation Estimation of a Five-link Walking Biped Robot | Lebastard, V.; Aoustin, Y.; Plestan, F. |
| 12,10/12,30 | FM1-6 | Collaboration among Members of a Team: a Heuristic Strategy for Multi-Robot Exploration | Giannetti, L.; Valigi, P. |
| | FM2 | Control systems 4 | |
| 10,30/10,50 | FM2-1 | Controllability to Zero of Positive Bilinear Discrete-time Systems with Delays | Kaczorek, T. |
| 10,50/11,10 | FM2-2 | Zero Coprime System Equivalence of Singular 2-D Linear Models | Boudelloua, M. S.; Karampetakis, N. P. |
| 11,10/11,30 | FM2-3 | Numerator-Denominator Structures of n-D MFDs | Pugh, A. C.; Hayton, G. E.; El-Nabrawy, E. M. O.; Karampetakis, N. P. |
| 11,30/11,50 | FM2-4 | Robust Exact Model Matching via Finite Precision Dynamic Output Feedback | Koumboulis, F. N.; Tzamtzi, M. P.; Skarpetis, M. G. |
| 11,50/12,10 | FM2-5 | Parameter Tuning and Hardware Implementation of a Non Integer Order PID Controller | Brunno, F.; Caponetto, R.; Fortuna, L.; Porto, D. |
| 12,10/12,30 | FM2-6 | Robust Control of Wiener Systems: A Case Study | Biagiola, S.; Garcia, A.; Agamennoni, O.; Figueroa, J. |
| | FM3 | Nonlinear systems and control | |
| 10,30/10,50 | FM3-1 | Symbolic Computation for Nonlinear Systems using Quotients over Skew Polynomial Ring | Halas, M.; Huba, M. |
| 10,50/11,10 | FM3-2 | Global Output Tracking for a Class of Nonlinear Systems by Output Feedback | Alimhan, K.; Inaba, H. |
| 11,10/11,30 | FM3-3 | On the Region of Asymptotic Stability of Nonlinear Quadratic Systems | Amato, F.; Cosentino, C.; Merola, A. |
| 11,30/11,50 | FM3-4 | Exergy and Irreversible Entropy Production Thermodynamic Concepts for Control Design: Nonlinear Systems | Robinett, R. D. III; Wilson, D. G. |
| 11,50/12,10 | FM3-5 | On Classical State Space Realizability of Bilinear Input-Output Differential Equations | Kotta, Ü.; Mullari, T.; Kotta, P.; Zinober, A. S. I. |
| 12,10/12,30 | FM3-6 | Web-Based Tools for Exact Linearization Control Design | Ondera, M.; Huba, M. |
| | FM4 | Marine Robots Guidance and Control | |
| | | Invited Session. Organizers: S. Zanolli and G. Indiveri | |
| 10,30/10,50 | FM4-1 | An Adaptive Law for Guidance and Control of Remotely Operated Vehicles | Antonelli, G. |
| 10,50/11,10 | FM4-2 | An Optimal Guidance Scheme for Cross-track Control of Underactuated Underwater Vehicles | Børhaug, E.; Pettersen, K. Y.; Pavlov, A. |
| 11,10/11,30 | FM4-3 | DC Motor Control Issues for UUVs. | Indiveri, G.; Parlangei, G.; Zanolli, S. M. |
| 11,30/11,50 | FM4-4 | Robust Reconfigurable Control for Recovery from Stern and Bow Plane Jams in Underwater Vehicles | Soucacos, P. P.; Beale, G. O. |

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| 11,50/12,10 | FM4-5 FEA1 | Autotuning Autopilots for Micro-ROVs Nonlinear observers and their applications Invited Session. Organizers: S. Diop and L. Fridman | Vukic, Z.; Miškovic, N.; Barišic, M.; Tovornik, B. |
| 14,30/14,50 | FEA1-1 | Robust State Estimation of Linear Neutral-type Delay Systems: a Convex Optimization Setting | Ibrir, S.; Diop, S. |
| 14,50/15,10 | FEA1-2 | A Differential Algebraic Approach to Anaerobic Digestion Estimation Problems | Diop, S.; Simeonov, I. |
| 15,10/15,30 | FEA1-3 | Full Order Unknown Inputs Observers Design For Delay Systems | Darouach, M. |
| 15,30/15,50 | FEA1-4 | High-Order Sliding-Mode Observer for Linear Systems with Unknown Inputs | Fridman, L.; Levant, A.; Davila, J. |
| 15,50/16,10 | FEA1-5 | Comparison of two Interconnected Observers for Sensorless Induction Motor Control via a Low Frequencies Benchmark | Ghanes, M.; De Leon, J.; Glumineau, A. |
| 14,30/14,50 | FEA2 FEA2-1 | Control systems 5 Robust PI Controllers for Command Following with Application to An Electropneumatic Actuator | Koumboulis, F. N.; Skarpetis, M. G.; Tzamtzi, M. P. |
| 14,50/15,10 | FEA2-2 | Robust Tracking and Disturbance Attenuation Controllers for Automatic Steering | Skarpetis, M. G.; Koumboulis, F. N.; Ntellis, A. S. |
| 15,10/15,30 | FEA2-3 | A SLICOT Implementation of a Modified Newton's Method for Algebraic Riccati Equations | Sima, V.; Benner, P. |
| 15,30/15,50 | FEA2-4 | Controller Design Based on the 1st Order Constrained Dynamics | Huba, M.; Kamensky, M. |
| 15,50/16,10 | FEA2-5 | Implementability of Regulation and Partial Decoupling of MIMO Plants | Gessing, R. |
| 15,30/15,50 | FEA3 FEA3-1 | H2/Hinfinity and optimal control Robust Fault Detection in a Mixed H_2/H_∞ Setting: The Discrete - Time Case | Khosrowjerdi, M. J.; Safari-Shad, N.; Nikoukhah, R. |
| 15,10/15,30 | FEA3-2 | Static Output-Feedback H_∞ Control of a Class of Stochastic Hybrid Systems with Wiener Process | Aberkane, S.; Ponsart, J. C.; Sauter, D. |
| 14,30/14,50 | FEA3-3 | H_∞ Control of a Teleoperation Drive-by-Wire System with Communication Time-Delay | Sename, O. |
| 14,50/15,10 | FEA3-4 | The H_2 Control Problem: State-space and Transfer-function Solutions | Kucera, V. |

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| 15,50/16,10 | FEA3-5 | A Multi-level Algorithm for the Finite Horizon LQ Optimal Control Problem with Assigned Final State: Additive and Multiplicative Procedures | Zattoni, E. |
| | FEA4 | Control of Over-actuated Systems: Application to Guidance and Control of Aerospace, Marine and Terrestrial Vehicles | |
| | | Invited Session. Organizers: A.Serrani and M. Bolender | |
| 14,30/14,50 | FEA4-1 | Adaptive Optimizing Dynamic Control Allocation Algorithm for Yaw Stabilization of an Automotive Vehicle using Brakes | Tjonnas, J.; Johansen, T. A. |
| 14,50/15,10 | FEA4-2 | A Survey of Control Allocation Methods for Ships and Underwater Vehicles | Fossen, T. I.; Johansen, T. A. |
| 15,10/15,30 | FEA4-3 | Control Allocation for Overactuated Systems | Oppenheimer, M. W.; Doman, D. B.; Bolender, M. A. |
| 15,30/15,50 | FEA4-4 | Application of Piecewise Linear Control Allocation to Reusable Launch Vehicle Guidance and Control | Bolender, M. A.; Doman, D. B.; Oppenheimer, M. W. |
| 15,50/16,10 | FEA4-5 | Tracking with Steady-State Optimization: an Application to Air-Breathing Hypersonic Vehicle Control | Sigthorsson, D. O.; Serrani, A. |
| | FLA1 | Closed-loop control of fluids | |
| | | Invited Session. Organizers: C. Rowley and A.Serrani | |
| 16,40/17,00 | FLA1-1 | Adaptive Flow Control using Slope Seeking | King, R.; Becker, R.; Feuerbach, G.; Henning, L.; Petz, R.; Nitsche, W.; Lemke, O.; Neise, W. |
| 17,00/17,20 | FLA1-2 | Experimental Results and Bifurcation Analysis on Scaled Feedback Control for Subsonic Cavity Flows | Yuan, X.; Caraballo, E.; Debiase, M.; Little, J.; Serrani, A.; Ozbay;; H.Samimy, M. |
| 17,20/17,40 | FLA1-3 | Reduced-order Models of Linearized Channel Flow using Balanced Truncation | Rowley, C. W.; Ilak, M. |
| 17,40/18,00 | FLA1-4 | Control Law Design for Channel Flow - 2D Designs and 3D Performance Evaluation | O'Dea, E.; Tutty, O. R.; Rogers, E. |
| | FLA2 | Control systems 6 | |
| 16,40/17,00 | FLA2-1 | Robust PID Control for a Micro-Actuator with Structural Uncertainty | Vagia, M.; Koveos, Y.; Nikolakopoulos, G.; Tzes, A. |
| 17,00/17,20 | FLA2-2 | A Simulated Annealing Controller for Sloshing Suppression in Liquid Transfer with Delayed Resonators | Tzamtzi, M. P.; Koumboulis, F. N.; Kouvakas, N. D.; Panagiotakis, G. E. |
| 17,20/17,40 | FLA2-3 | A Cooperative Local Observers-based Control for Web Handling Systems: a Dilated LMI Solution | Claveau, F.; Chevrel, Ph.; Yagoubi, C. C. |

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| 17,40/18,00 | FLA2-4 | Design of Decoupled IMC-Based PI Controller for MIMO Process | Harinath, E.; Mann, G. |
| | FLA3 | Systems Biology | |
| | | Invited Session. Organizer: L. Giarre | |
| 16,40/17,00 | FLA3-1 | Modeling and Analysis of a Bacterial Stochastic Switch | Munsky, B.; Khammash, M. |
| 17,00/17,20 | FLA3-2 | A Note on Monotone Systems with Positive Translation Invariance | Angeli, D.; Sontag, E. D. |
| 17,20/17,40 | FLA3-3 | A Minimal Model Describing the Effect of Drug Administration on Tumor Growth Dynamics | De Nicolao, G.; Magni, P.; Bianchini, G.; Germani, M.; Simeoni, M.; Poggesi, I.; Rocchetti, M. |
| 17,40/18,00 | FLA3-4 | Identification of Replicator-mutator Models | Falugi, P.; Giarre, L. |
| | FLA4 | Autonomous Surface Craft | |
| | | Invited Session. Organizer: M. Caccia | |
| 16,40/17,00 | FLA4-1 | Modelling and Identification of the Charlie2005 ASC | Caccia, M.; Bruzzone, G.; Bono, R. |
| 17,00/17,20 | FLA4-2 | Autonomous Surface Craft: Prototypes and Basic Research Issues | Caccia, M. |
| 17,20/17,40 | FLA4-3 | Soft Computing Design of a Linear Quadratic Gaussian Controller for an Unmanned Surface Vehicle | Naeem, W.; Sutton, R.; Chudley, J. |
| 17,40/18,00 | FLA4-4 | Vehicle and Mission Control of the DELFIM Autonomous Surface Craft | Alves, J.; Oliveira, P.; Oliveira, R.; Pascoal, A.; Rufino, M.; Sebastião, L.; Silvestre, C. |

PROGRAM AT A GLANCE

| Wednesday, JUNE 28, 2006 | | | | | |
|--------------------------|---|---|---|----------------------------------|-------------------|
| 8,45/9,00 | OPENING ADDRESS | | | | |
| 9,00/10,00 | WP | | | | |
| | Aerospace Controls: The Way Forward Speaker: Dr. S. S. Banda | | | | |
| 10,00/10,30 | COFFEE | | | | |
| 10,30/12,30 | WM1 | WM2 | WM3 | WM4 | |
| | Advances in Unmanned Aerial Vehicle Technology, With Wireless Sensor Network Applications | Control Systems 1 | Planning and Intelligent Control Techniques for Unstructured Robotic Environments: The Research Program PICTURE | Topics in Systems Identification | |
| 12,30/14,30 | LUNCH | | | | |
| 14,30/16,10 | WEA1 | WEA2 | WEA3 | WEA4 | |
| | Aircrafts and Aerial Vehicles 1 | Observation and Filtering | Infinite Dimensional Control Systems | Robotics 1 | |
| 16,10/16,30 | COFFEE | | | | |
| 16,40/18,00 | WLA1 | WLA2 | WLA3 | WLA4 | |
| | Control of Suspension Systems | Switching and Hybrid Systems | Stability and Stabilization Problems | Robotics 2 | |
| Thursday, JUNE 29, 2006 | | | | | |
| 9,00/10,00 | TP | | | | |
| | Systems Biology of Group Decision Making Speaker: Prof. K. M. Passino | | | | |
| 10,00/10,30 | COFFEE | | | | |
| 10,30/12,30 | TM1 | TM2 | TM3 | TM4 | TM5 |
| | Swarm and Formation Control | Neural Networks and Applications | Mobile Robots | Control Systems 2 | Process Control 1 |
| 12,30/14,30 | LUNCH | | | | |
| 14,30/16,10 | TEA1 | TEA2 | TEA3 | TEA4 | |
| | Control Systems 3 | Distributed, Networked and Teleoperated Systems | Aircrafts and Aerial Vehicles 2 | Process Control 2 | |
| 16,10/16,30 | COFFEE | | | | |
| 16,40/18,00 | TLA1 | TLA2 | TLA3 | TLA4 | |

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| | <i>Control of Electro/mechanical Systems</i> | <i>Fault Detection</i> | <i>Motor and Field Control</i> | <i>Appliances and Home Automation</i> | |
| | Friday, JUNE 30, 2006 | | | | |
| 9,00/10,00 | FP | | | | |
| | <i>Control Oriented Models and Feedback Design in Fluid Flow Systems: A Review</i> Speaker: Prof. G. Tadmor | | | | |
| 10,00/10,30 | COFFEE | | | | |
| 10,30/12,30 | FM1 | FM2 | FM3 | FM4 | |
| | <i>Mobile Robots and Multi-robot Systems</i> | <i>Control Systems 4</i> | <i>Nonlinear Systems and Control</i> | <i>Marine Robots Guidance and Control</i> | |
| 12,30/14,30 | LUNCH | | | | |
| 14,30/16,10 | FEA1 | FEA2 | FEA3 | FEA4 | |
| | <i>Nonlinear Observers and their Applications</i> | <i>Control Systems 5</i> | <i>H₂/H_∞ infinity and Optimal Control</i> | <i>Control of Over-actuated Systems: Application to Guidance and Control of Aerospace, Marine and Terrestrial Vehicles</i> | |
| 16,10/16,30 | COFFEE | | | | |
| 16,40/18,00 | FLA1 | FLA2 | FLA3 | FLA4 | |
| | <i>Closed-loop Control of Fluids</i> | <i>Control Systems 6</i> | <i>Systems Biology</i> | <i>Autonomous Surface Craft</i> | |