

## News

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*News on Some Time Delay Systems Events***IFAC Workshops on Time Delay Systems**

The first Workshop on the rapidly growing field of time delay systems was organized by the Laboratoire d'Automatique de Grenoble, ENSIEG, INPG-CNRS in Grenoble, France, on July 6–7, 1998. This Workshop was sponsored by the Technical Committee on Linear Systems of the International Federation of Automatic Control (IFAC).

The 50 participants had the possibility to attend 4 plenary sessions, 2 invited sessions as well as 30 contributed papers selected from 40 submitted papers coming from 17 countries. The first Plenary session on “Systems over Rings: Geometric Theory and Applications” was presented by Giuseppe Conte (Italy). The second one, on “Algebraic Tools for the Control and Stabilization of Time Delay Systems” was given by Jean-Jacques Loiseau (France). Carlos E. de Souza (Brazil) pointed out main aspects on the “Robust Stability and Control of State-Delayed Systems”. The last plenary session concerning “Finite Spectrum Property and Predictors” was presented by Andrzej W. Olbrot (U. S. A.).

The technical papers, arranged in 11 sessions, covered the field of linear time delay systems, including algebraic and structural properties, stability analysis, stabilization,  $H_\infty$  control, robust stabilization and some applications.

This Workshop provided an opportunity for fruitful scientific exchanges in a very pleasant atmosphere, including interesting discussions during the gala dinner in a historical site overlooking Grenoble.

The 2nd IFAC Workshop on Linear Time Delay Systems took place in Ancona, Italy, on September 11–13, 2000. It was organized by the Dipartimento di Matematica “V. Volterra” Università di Ancona. It was sponsored by the IFAC Technical Committee on Linear Systems and by the IFAC Technical Committee on Nonlinear Systems. Other sponsors were the Italian National Association for Automation (ANIPLA) and the Italian Chapter of the IEEE Control System Society. The aim of the Workshop was to bring together specialists in the field of time delay systems to present the state of the art and to discuss new trends and mutual impacts of their research. Due to the fact that time delay systems appear in modeling a very large number of dynamical behaviors, from industrial process control to telecommunication, they are receiving an increasing attention and are becoming an important subject in scientific literature.

The 53 papers presented during the three days of the Workshop addressed both theoretical and practical problems. The topics covered included modeling and identification, control issues, stability and stabilization problems, numerical methods for DDE's, and development of CAD tools. With a participation of about 70 researchers from 16 countries, the workshop provided an excellent opportunity for control theorist and mathematicians, both senior and junior researchers, to meet and exchange ideas on the stimulating topics of time delay systems.

In conjunction with this Workshop, a summer school on time delay systems was organized in Grenoble, France, the week before the Workshop. This Summer School was mainly intended to Ph.D. students.

The 3rd Workshop on Time Delay Systems follows the same tradition; it also concerns now non linear time delay systems and includes further applications to communication networks, bioengineering and economics. The Workshop will be held at Santa Fe, New Mexico, U. S. A. on December 8–10, 2001 and is sponsored by the IFAC Technical Committee on Linear Systems, EECE Department, University of New Mexico at Albuquerque,

Ibero-American Science and Technology Education Consortium, and is co-sponsored by the IFAC Technical Committee on Nonlinear Systems, which represents a novelty with respect to the previous workshops (explicitly devoted to linear time-delay systems). The workshop will focus on various issues related to time-delay systems. The topics include but are not limited to: modeling and identification, stability and stabilization, robustness issues, filtering and estimation, infinite dimensional systems, 2D and  $n$ D systems, approximation techniques and numerical methods, control schemes and applications. Three plenary talks will be given by Professors Jake K. Hale (Georgia Institute of Technology, Atlanta, U. S. A.), Vladimir Koltchinskii (University of New Mexico, Albuquerque, U. S. A.) and Carlos E. de Souza (LNCC, Petropolis, Brazil).

More details about the Workshop, as well as papers and invited sessions, deadline, registration form and hotel reservation can be found on the web site:

["http://www.siu.edu/ifacdelay"](http://www.siu.edu/ifacdelay)

The fourth edition of the Workshop is planned in the year 2003.

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