CENTRE EMILE BOREL
(Institut Henri Poincaré)

CONTROL THEORY AND APPLICATIONS

January 5th - April 3rd, 1998

The quarter will be devoted to observability, control and stabilization problems of systems governed by differential or partial differential equations. The problems, mathematical methods and their applications will be presented in various domains such as robotics, automatic control, nonlinear systems and sub-Riemannian geometry, wave propagation, fluid mechanics, active control and inverse problems. A particular attention will be devoted to the training of young researchers in these fields.

Scheduled courses

J.-M. CORON *Contrôlabilité et stabilisation de systèmes non linéaires*
N. BURQ *Observation et contrôle d'équations linéaires*
A. V. FURSIKOV et O. Yu IMANUVILOV *Controllability of evolution equations*
H. SUSSMANN *Développements récents sur le contrôle optimal déterministe en dimension finie*

A regular seminar and tutorial workshops will be scheduled.

Already confirmed participations

A. AGRACHEV, H. T. BANKS, M. BELISHEV, G. DA PRATO
G. LEUGERING, D. TATARU, M. VOGELIUS, E. ZUAZUA

Workshops

Control of fluids and structures (dates to be specified)
Control of nonlinear systems (dates to be specified)

Organizers

Claude BARDOS (Université Paris 7 and CMLA, ENS Cachan): bardos@cmla.ens-cachan.fr
Jean-Michel CORON (Université Paris-Sud): Jean-Michel.Coron@math.u-psud.fr
Gilles LEBEAU (Université Paris-Sud): Gilles.Lebeau@math.u-psud.fr
Jean-Pierre PUEL (Université de Versailles and CMAP, École polytechnique): jppuel@cmapx.polytechnique.fr

People interested in participating in the program are invited to contact the secretary. Participation of postdocs and PhD students is strongly encouraged. They will have open access to all Institute's facilities. Those who wish a financial support and/or an office should send an application to the secretary (together with a curriculum vitae, and a letter of recommandation for students).

For further information, contact the secretary of the Centre Émile Borel:
Tel: 01 44 27 67 75. Fax: 01 44 07 09 37. e-mail: controle@ihp.jussieu.fr
(Calling from abroad: replace 01 by 331.)

CALL FOR PROPOSALS : The Henri Poincaré Institute organises at the Centre Émile Borel thematic semesters or quarters in mathematics and theoretical physics. Its scientific committee, consisting of Jean-Benoît Bost, Bernard Castaing, Ivar Ekeland, Michel Ledoux, Francois Loeser, Jean-Francois Luciani, Guy Métivier, Nicolaï Nikolski, Benoît Perthame, Raymond Stora, Claude Viallet and Claude Viterbo meets each year in February, May and October to choose the programs. Proposals may be sent to any of these members.