

Hyperbolic PDEs: Analytical Techniques and Applications

Maria Laura Delle Monache
University of California, Berkeley, USA

Francesca Marcellini
University of Brescia, ITALY

Structure: This session is scheduled on July 23-24. It consists of 10 talks (each 45 minutes long followed by a 15-minute break).

Topic: The techniques of hyperbolic partial differential equations, in particular (of systems of) conservation laws, are the main topic of the special session "Hyperbolic PDEs: Analytical Techniques and Applications". The analytical results presented comprise also the case of mixed systems, in which conservation or balance laws are coupled also with ordinary differential equations, or equations of other types. The motivations for the tackled problems typically originate in very specific problems, suggested by a wide variety of applications such as fluid dynamics, epidemiology or biology and, mostly, the modeling of vehicular traffic flows.