Dipartimento di Scienze Matematiche
Politecnico di Torino

Colloquium

Il giorno giovedì 8 novembre, alle ore 14.30 in Aula Buzano, il Professor

Christian Lubich

dell'Università di Tübingen, terrà la conferenza dal titolo

Numerically stable coupling of interior and exterior problems for the wave equation

Abstract. The talk presents a well-posed formulation of the wave equation on $\mathbf{R}^3$ with source term and initial data in a bounded domain as the partial differential equation on that domain coupled to a boundary integral equation. The system is discretized in space by finite elements and boundary elements, and in time by the leapfrog scheme in the domain and convolution quadrature on the boundary. The complete discretization is stable and convergent. The analysis rests on a positivity property of the Calderon operator and its spatio–temporal discretization. The talk is based on joint work with Lehel Banjai and Francisco-Javier Sayas.

Per informazioni contattare
Enrico Serra: 011 090 7540, enrico.serra@polito.it
Paolo Tilli: 011 090 7503, paolo.tilli@polito.it