ID de Contribution: **32**   Type: **présentation murale**

A new approach for preconditioning discontinuous Galerkin discretizations

mercredi 21 janvier 2015 18:00 (1 heure)

Domain decomposition preconditioners and in particular the additive Schwarz method are favorite preconditioners for classical finite element methods (FEM). There is a huge effort in designing similar preconditioners for discontinuous Galerkin (DG) discretizations. It has been shown that additive Schwarz methods use different mechanisms for convergence when applied to a DG discretization compared to the classical FEM. More precisely, additive Schwarz methods, when applied to DG, use a non-overlapping Robin transmission condition for the communication between subdomains. This is exactly the same transmission condition that optimized Schwarz methods (OSM) use to obtain fast convergence. In this poster we present an OSM preconditioner for a particular DG discretization along with theoretical convergence estimates.

Auteur principal: HAJIAN, Soheil (Université de Genève)

Orateur: HAJIAN, Soheil (Université de Genève)

Classification de Session: Session Poster