Istituto di Analisi Numerica del CNR
Dipartimento di Matematica "Felice Casorati"
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Seminario di Matematica Applicata

Martedì 28 Gennaio alle ore 16.00 nella Sala Conferenze dell'I.M.A.T.I. del CNR (sezione di Pavia – ex I.A.N.) il

Prof. Peter Hansbo
(Chalmers University of Technology)

terrà la conferenza:

Nitsche's method for interface problems

Abstract. Interfaces between domains with differing material properties require aligned meshes in order to give optimal convergence rates in finite element discretization methods. Examples of such interface problems are inclusions, melt fronts, or cracks. In this talk, I will consider the possibility of letting the interface run through the physical elements, avoiding mesh alignment, and use the Nitsche (AKA discontinuous Galerkin) method to ensure continuity in temperature and/or flux (displacements and/or stress). Applications will be given to Poisson's equation and small strain elastic inclusion and crack problems. I will also present, using a similar concept, stable overlapping mesh methods of arbitrary order of accuracy, methods which retain underlying symmetries of the continuous problem if they are present.

La S.V. è cordialmente invitata.

☕ Dopo la conferenza verrà offerto ai partecipanti un piccolo rinfresco.