ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

Prof. Fabio Nobile
Mathematics Institute of Computational Science and Engineering - MATHICSE

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SEMINAR OF NUMERICAL ANALYSIS

➢ **WEDNESDAY 12 FEBRUARY 2014 - ROOM MA A1 10 - 16h15**

Prof. Antonio FALCO (Universidad CEU Cardenal Herrera, Valencia / Spain) will present a seminar entitled :

"Geometric structures and tensor based algorithms"

Abstract:

Tensor formats based on subspaces are widely used in scientific computation.
Their constructions are usually based on a hierarchy of tensor product subspaces spanned by orthonormal bases, because in most cases one needs representations which are fitted to the special structure of the mathematical object under consideration. In this talk we introduce a general class of tensor formats based in subspaces and its geometric properties. We explain using these geometric structures the Proper Generalized Decomposition and the Dirac-Frenkel variational principle.

Lausanne, 17 January 2013/FN/cr

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The MATHICSE seminars are announced at http://mathicse.epfl.ch/seminars.