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SEMINAR OF NUMERICAL ANALYSIS

➤ **TUESDAY 24 APRIL 2018 - ROOM MA A3 31 - 16:15**

Prof. Snorre CHRISTIANSEN (University of Oslo) will present a seminar entitled:

**« Finite element systems and complexes of differential forms for
the Stokes equation »**

Abstract:

The finite element system framework captures essential features of known mixed finite element spaces and has enabled the construction of new spaces of vector fields for PDEs with variational formulations in $H(\text{curl})$ and $H(\text{div})$, or, more generally, sequences of spaces of differential forms with such regularity. In joint work with Kaibo Hu we have generalized the framework so that it can impose higher order continuity between elements, of the type required for conforming discretizations of the Stokes equation. Within the framework we construct examples of finite element sequences equipped with interpolators (local projections) that commute with the relevant differential operators.

Lausanne, 19 April 2018/AB/Jb

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