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MATHICSE COLLOQUIUM

> ➢ **THURSDAY 27 FEBRUARY 2014 - ROOM MA B1 11 - 14h15**

Prof. Nick TREFETHEN, *(Oxford University, Oxford, U.K.)* will present a colloquium entitled:

"Continuous analogues of matrix factorizations"

Abstract:

The algorithms of numerical linear algebra are tied to familiar matrix factorizations such as LU, Cholesky, QR, and SVD. What happens to these factorizations if the discrete matrix becomes continuous in one dimension (a "quasimatrix") or both (a "cmatrix")? Such questions have become of practical importance to us recently in the Chebfun software project, whose aim is to enable numerical computation with functions of continuous variables.

This talk will present some answers, including a discussion of the analogues of pivoting and triangular structure for continuous objects. Chebfun demonstrations will be included. This is joint work with Alex Townsend.

Lausanne, 7 January 2014/AQ/cr

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