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Mathematics Institute of Computational Science and Engineering - MATHICSE

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SEMINAR OF NUMERICAL ANALYSIS

> FRIDAY 16 MARCH 2012 - ROOM MA B1 11 - 16h15

Prof. Charles van Loan, (Cornell University, New York / USA) will present a seminar entitled:

"Bridging the gap from matrix to tensor computations"

Abstract:

When a tensor is unfolded, its elements are systematically rearranged into a matrix. One reason for doing this is that decompositions of the unfolding can reveal hidden structures in the tensor. This raises some interesting questions about the future interplay between matrix computations and tensor computations. Will blocking become as important in tensor computations as it is in matrix computations? Are there interesting new structured matrix problems that arise from the unfolding of structured tensors? Has tensor "technology" prompted the design of new decompositions for multiple-matrix problems? Right now I would say that the answer to these questions are "yes", "yes", and "yes"!

Lausanne, 21 February 2012 / DK/cr