

Distinguished SCI Seminar

Charlie Van Loan



**April 8th
2:00-3:00 pm
WEB 3760**

Cornell University

**Joseph C. Ford Professor of Engineering
Department of Computer Science**

Block Tensor Computations

Abstract

Will blocking become as important to tensor computations as it is to matrix computations? I will address this issue in the context of low-rank approximation and tensor contractions. A block tensor connection between the singular values of a general tensor and the eigenvalues of a symmetric tensor will also be discussed.

Bio:

Professor Van Loan received his undergraduate and graduate degrees in mathematics from the University of Michigan (1965-1973). He was a Research Fellow at the University of Manchester (1974-75) and has been a faculty member in the Department of Computer Science at Cornell University since 1975. His research focus is in the field of numerical linear algebra with a current emphasis on tensor computation.

He has written six textbooks: *Insight Through Computing--A Matlab Introduction to Computational Science and Engineering* (with D. Fan), *Matrix Computations, Third Edition* (with G.H. Golub), *Handbook for Matrix Computations* (with T. Coleman), *Computational Frameworks for the Fast Fourier Transform*, *Introduction to Computational Science and Mathematics*, and *Introduction to Scientific Computation--A Matrix/Vector Approach Using Matlab*.

DSCI

SCIENTIFIC COMPUTING & IMAGING
INSTITUTE



www.sci.utah.edu