



The Chair of Optimization and Control
at the Institute of Computer Science
and
the SET Program at the Jagiellonian University
kindly invites to the course of

Professor Dr. Weimin Han

Professor and Director of Applied Mathematical & Computational Sciences
The University of Iowa, Iowa City, IA

„Numerical Analysis with Applications to Contact Mechanics”

This course provides an introduction to modern PDEs, the finite element method or solving elliptic PDEs and variational inequalities, with an emphasis on problems arising in contact mechanics.

Course plan:

Sobolev spaces (definitions, basic properties), 2 classes
Weak formulations (Lax-Milgram Lemma, elliptic BVPs, linearized elasticity), 2 classes
The Galerkin method, 1 class
The finite element method, 3 classes
Variational inequalities and contact problems, 5 classes
Discontinuous Galerkin methods for EVIs and contact problems, 2 classes

Dates: March 17 (Monday) – March 21 (Friday), 2014, 10:00 am to 1:00 pm, room 1177

Lectures are interdisciplinary, the subject lies on the border of mathematics, computer science and mechanics.

Master students, PhD students, and faculty members are all welcomed.