



Introduction to Numerical Simulation

Lecturer: Michał Rewieński (GUT); 15 h

Course description: This interdisciplinary course provides an introduction to computational techniques for the simulation of a broad range of engineering and physical systems. Concepts and methods discussed are widely illustrated by applications drawn from electrical, mechanical, and chemical engineering. Topics include: mathematical formulations of simulation problems; sparse direct and iterative linear system solution techniques, including Krylov subspace methods; preconditioning techniques; Newton methods for nonlinear problems; techniques for ordinary differential equations; stability and convergence for multistep integration methods; automatic model order reduction techniques for linear dynamical systems.

TERMINY WYKŁADÓW			
29.11.2010	Poniedziałek	9-11	NE 209
01.12.2010	Środa	8-10	NE 209
06.12.2010	Poniedziałek	9-11	NE 209
08.12.2010	Środa	8-10	NE 209
13.12.2010	Poniedziałek	9-11	NE 209
15.12.2010	Środa	8-10	NE 209
20.12.2010	Poniedziałek	9-11	NE 209
22.12.2010	Środa	8-9	NE 209