FAKULTÄT FÜR MATHEMATIK, INFORMATIK UND PHYSIK
LEOPOLD-FRANZENS UNIVERSITÄT INNSBRUCK
INSTITUT FÜR MATHEMATIK

Technikerstrasse 13/7
A-6020 Innsbruck
Telefon: +43 512 507 6071 oder 6097

E-Mail: mathematik@uibk.ac.at
http://www.uibk.ac.at/mathematik/
Fax: +43 512 507 2920

MATHEMATIKKOLLOQUIUM

Das Institut für Mathematik lädt zu folgendem Vortrag ein:

Convergent time discretisation of doubly nonlinear evolution equations of second order

Prof. Etienne Emmerich

Universität Bielefeld

A class of doubly nonlinear evolution equations of second order with a first-order damping term is studied. The operator acting on the zero-order term is assumed to be the sum of a linear, bounded, symmetric, strongly positive operator and a nonlinear operator that fulfills a certain growth and a Hölder-type continuity condition. The operator acting on the first-order time derivative is a nonlinear hemicontinuous operator that fulfills a certain growth condition and is (up to some additive shift) monotone and coercive. The convergence of a time discretisation on a variable time grid is shown by reducing the second-order equation to a parabolic integro-differential equation. This convergence also proves the existence of a weak solution.

Zeit: Montag, den 8. März 2010 um 17^{15} Uhr

Ort: Viktor-Franz-Hess Haus, Technikerstr. 21, Hörsaal E

Mechthild Thalhammer

Gäste sind herzlich willkommen!