Spring Lecture Series N.19
Mathematical Approaches to the Study of Non-Linear Materials (1994)

Principal Lecturer: David Kinderlehrer, Carnegie Mellon University

Contributions by:

R. Hardt

Title: singularities for p-energy minimizing unit vector fields

N. Walkington

Title: Computational modelling for non-linear materials

B. Yan

Title: W^{1,p} compactness and strong convergence related to a set of matrices

I. Fonseca

Title: Relaxation and minimization problems in material sciences

P. Kloucek

Title: Dynamics of the martenstic transformation

M. Hilgers

Title: Energy minimizing deformations of elastic sheets with bending stiffness

Z. Wu

Title: Comensated compactness, paracomutators and Hardy spaces

W. Chen

Title: A note on the Kazdan-Warner type

G. Auchmuty

Title: Potentials and Duality in linear and nonlinear field theory

W. Roundell

Title: A reconstruction algorithm for a problem in inverse obstacle scattering

M. Shillor

Title: Homogeneization of an elastic material with soft inclusions in frictionless contact

N. Alikakos

Title: Motion of bubbles and drops for the Cahn Hilliard equation

L. Ma

Title: The computation of magnetic materials

S. Demoulin

Title: ?Oung measure solutions for some nonlinear evolution problems

B. Lowe

Title: Coefficient recovering in a parabolic equation from input sources

P. Marcellini

Title: Regularity in the Calculus of Variations

G. Bao

Title: Mathematical issues in the grating theory of nonlinear optics

T. Little

Title: Semilinear parabolic equations with preisach hysteresis