

Czech Technical University in Prague
Sunday, 24 June 2007, Dean's Conference Room

ZPB70Workshop

celebrating the approaching 70th birthday of Prof. Zdeněk P. Bažant

12:45-13:00 opening remarks

13:00-13:20 Kaspar Willam:
Multi-scale issues of softening material behavior

13:20-13:40 Ted Belytschko:
On computational methods for cracking at disparate scales

13:30-14:00 Franz Ulm:
Is C-S-H intrinsically unstable?

14:00-14:20 John W. Rudnicki:
Scaling relation for compaction bands in porous rock

coffee break

14:40-15:00 Pere C. Prat, M. R. LakshmiKantha and A. Ledešma:
Fracture mechanics and size effect in the cracking of drying soils

15:00-15:20 Peter Grassl:
Size effect of buckling-driven delamination of notched sandwich beams

15:20-15:40 Miroslav Vořechovský and Drahomír Novák:
Modeling statistical size effect

15:40-16:00 Mohammed T. Kazemi and Vahid Broujerdiān:
Shear design of R/C beams based on Bažant's size effect law

coffee break

16:20-16:40 Alek Zubelewicz:
Stress-induced defect structures in metals subjected to extreme loading rates

16:40-17:00 Gustavo Gioia:
Invariant path integrals and similarity fields in elastoplastic fracture

17:00-17:20 Joško Ožbolt:
Modeling of concrete at high temperature

17:20-17:40 Gianluca Cusatis:
Discrete models for the simulation of concrete behavior

17:40-18:00 Vít Šmilauer:
Micromechanical analysis of creep using Fast Fourier Transform

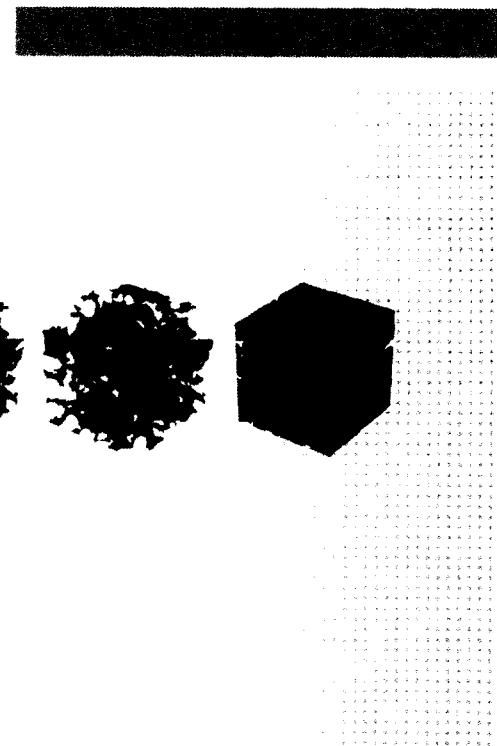
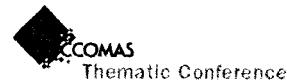
MHM 2007

ECCOMAS Thematic Conference hosted by the Czech Technical University

Modelling of Heterogeneous Materials

with Applications in Construction and Biomedical Engineering

PROGRAM



Microplane models I.

(special session honoring Prof. Bažant)

chaired by Milan Jirásek

26 June 2007, 14:00–15:40

Room B280

14:00–14:18	Z. P. Bažant	198
	Nano-mechanics based size effect on safety factors and lifetime of quasibrittle structures	
14:18–14:36	G. Cusatis, Z. P. Bažant, A. Beghini	200
	Microplane model for composite laminates	
14:36–14:54	J. Ožbolt	202
	Modelling of wood in the framework of microplane theory	
14:54–15:12	F. C. Caner, I. Carol	204
	Microplane model for soft tissue	
15:12–15:30	A. E. Blangino, S. Valente, M. Barba	206
	An approach for a constitutive relation for skeletal ligaments using a microplane model	
15:30–15:40	General discussion	

Microplane models II.

(special session honoring Prof. Bažant)

chaired by Ferhun Caner

26 June 2007, 16:00–17:40

Room B280

16:00–16:18	<i>F. A. Sánchez, P. C. Prat</i>	208	Elastoplastic microplane model for cohesive-frictional materials: Application to geotechnical engineering problems
16:18–16:36	<i>G. Di Luzio, G. Cusatis</i>	210	Microplane model and solidification-microprestress theory for early age concrete behavior
16:36–16:54	<i>M. T. Kazemi, I. Zakeri</i>	212	Microplane M4 model for fiber reinforced concrete
16:54–17:12	<i>B. Deliktaş, F. C. Caner, M. Ornek</i>	214	Inverse procedure for the parameters identification of the microplane material model
17:12–17:30	<i>A. Kučerová, M. Lepš, J. Němeček</i>	216	Estimation of microplane model parameters from experiments in uniaxial compression
17:30–17:40	General discussion		

Monday	14:00 16:00	Plenary session I. (p. 3)	
		13:30	10:30
		Plenary session II. (p. 4)	Poster session (pp. 5–7)
		Multiscale modelling of heterogeneous materials I. (p. 8)	Discrete cracking, fracture and interface elements (p. 9)
	8:20	Plenary session III. (p. 15)	
		Multiphysics modelling of porous media I. (p. 16)	Homogenization of elastic and inelastic behaviour I. (p. 17)
Tuesday	10:30	Poster session (pp. 5–7)	
		Multi-phase, multiphysics modelling of porous media II. (p. 19)	Homogenization of elastic and inelastic behaviour II. (p. 20)
	14:00	Multi-phase, multiphysics modelling of porous media III. (p. 22)	Instabilities, anisotropy, enhanced continua (p. 23)
	16:00	Plenary session IV. (p. 26)	
		Plenary session V. (p. 27)	
Wednesday	10:30	Modelling of transport properties (p. 28)	Microstructure characterization and reconstruction (p. 30)
	8:30		Microscale modelling of cementitious materials (p. 32)
	14:00	Plasticity, damage and fracture of heterogeneous materials I. (p. 29)	Room D1
	16:00	Plasticity, damage and fracture of heterogeneous materials II. (p. 31)	Room B286
		Room B280	