

TIME TABLE

TIME	Monday June 28	Tuesday June 29	Wednesday June 30	Thursday July 1	Friday July 2
9.00 - 9.45	Registration	Papadopoulos	Ladeveze	Zohdi	Wriggers
9.45 - 10.30	Geers	Papadopoulos	Ladeveze	Zohdi	Wriggers
11.00 - 11.45	Geers	Wriggers	Llorca	Geers	Zohdi
11.45 - 12.30	Ladeveze	Wriggers	Llorca	Geers	Zohdi
14.30 - 15.15	Ladeveze	Zohdi	Papadopoulos	Ladeveze	
15.15 - 16.00	Llorca	Zohdi	Papadopoulos	Ladeveze	
16.30 - 17.15	Llorca	Geers	Wriggers	Papadopoulos	
17.15 - 18.00		Geers	Wriggers	Papadopoulos	

International Union for Theoretical and Applied Mechanics

IUTAM

Centre International des Sciences Mécaniques
International Centre for Mechanical Sciences



ACADEMIC YEAR 2010
The Lippmann Session

17th CISM-IUTAM Summer School on

MODELLING AND SIMULATION OF MULTISCALE CONTINUUM SYSTEMS

Advanced School
coordinated by

Panos Papadopoulos
University of Berkeley
CA, USA

Tarek I. Zohdi
University of Berkeley
CA, USA

Udine, June 28 - July 2, 2010

MODELLING AND SIMULATION OF MULTISCALE CONTINUUM SYSTEMS

In many modern engineering systems, materials with highly complex microstructures undergoing multiphysical processes are now in wide use. The focus of this CISM lecture series is to address recent advances in modeling and computational issues describing multiscale-multiphysical system behavior. The themes to be addressed are:

- 1) Coupled system behavior,
- 2) Micro-macro scale relationships and
- 3) Inverse problems.

Examples are to be drawn from across disciplines: solid mechanics, fluid mechanics, electromagnetics, etc.

The lectures will have appeal to researchers in applied mathematics, mechanics, engineering and physics with interests in computer simulation of multiscale systems experiencing multifield responses.

The objective is to illustrate techniques which enable fast and accurate predictions of new high performance complex material behavior by direct numerical simulation, with the goal being to reduce costly, time consuming, trial and error laboratory analyses. The specific topics include modeling and methods for modern three-dimensional large scale computations.

The course is addressed to doctoral students and young researchers.

INVITED LECTURERS

Marc Geers - Eindhoven University of Technology, The Netherlands
6 lectures on:
Micro-macro homogenisation of nonlinear systems and related multifield problems.

Pierre Ladeveze - L.M.T. Cachan, France
6 lectures on:
Multiscale modeling and related multifield problems.

Javier Llorca - Universidad Politécnica de Madrid, Spain
6 lectures on:
Virtual testing strategies in composites and micro-macro scale relationships, multiscale modeling and related multifield problems.

Panos Papadopoulos - University of California, Berkeley, CA, USA
6 lectures on:
Constitutive modeling and simulation of coupled system behavior, micro-macro scale relationships and related multifield problems in solid mechanics.

Peter Wriggers - University of Hannover, Germany
6 lectures on:
Micro-macro homogenization and related algorithms for three-dimensional large scale computations including damage, contact algorithms and related multifield problems.

Tarek Zohdi - University of California, Berkeley, CA, USA
6 lectures on:
Nonstandard inverse problems in micro macro mechanics and related multifield problems.

LECTURES

All lectures will be given in English. Lecture notes can be downloaded from CISM web site, instructions will be sent to accepted participants.

ADMISSION AND ACCOMMODATION

Applicants must apply at least one month before the beginning of the course. Application forms should be sent on-line through our web site: <http://www.cism.it> or by post.

A message of confirmation will be sent to accepted participants. If you need assistance for registration please contact our secretariat.

The 700,00 Euro registration fee includes a complimentary bag, four fixed menu buffet lunches (Friday not included), hot beverages, on-line/downloadable lecture notes and wi-fi internet access.

A limited number of participants from universities and research centres who are not supported by their own institutions can be offered board and/or lodging in a reasonably priced hotel. Requests should be sent to CISM Secretariat by **April 28, 2010** along with the applicant's curriculum and a letter of recommendation by the head of the department or a supervisor confirming that the institute cannot provide funding. Preference will be given to applicants from countries that sponsor CISM.

The Deutscher Akademischer Austausch Dienst (DAAD) and the Deutsche Forschungsgemeinschaft (DFG) offer support to German students. Please contact:

DAAD, Kennedyallee 50, 53175 Bonn
tel. +49 (228) 882-0
e-mail: postmaster@daad.de
web site: <http://www.daad.de/de/kontakt.html>

DFG, Kennedyallee 40, 53175 Bonn
tel. +49 (228) 885 2655
e-mail: ing4@dfg.de
web site: <http://www.dfg.de>

Information about travel and accommodation is available on our web site, or can be mailed upon request.

For further information please contact:

CISM
Palazzo del Torso - Piazza Garibaldi 18
33100 Udine (Italy)
tel. +39 0432 248511 (6 lines)
fax +39 0432 248550
e-mail: cism@cism.it

**MODELLING AND SIMULATION
OF MULTISCALE CONTINUUM SYSTEMS**

Udine, June 28 - July 2, 2010

Application Form

(Please print or type)

Surname _____

Name _____

Affiliation _____

Address _____

E-mail _____

Phone _____ Fax _____

Method of payment upon receipt of confirmation (Please check the box)

The fee of Euro 700,00 includes IVA/VAT tax and excludes bank charges

I shall send a check of Euro _____

Payment will be made to CISM - Bank Account N° 094570210900,
VENETO BANCA - Udine (CAB 12300 - ABI 05418 - SWIFT AMBPIT2M - IBAN
CODE IT83Z 05418 12300 09457 0210900).

Copy of the receipt should be sent to the secretariat

I shall pay at the registration counter with check, cash or VISA
Credit Card (Mastercard/Eurocard, Visa, CartaSi)

IMPORTANT: CISM is obliged to present an invoice for the above sum. Please indicate to whom the invoice should be addressed.

Name _____

Address _____

C.F.* _____

VAT/IVA* No. _____

(*) Only for EU residents or foreigners with a permanent business activity in Italy.

Only for Italian Public Companies

I ask for IVA exemption (ex law n. 537/1993 - art. 14 comma 10).

Privacy policy: I understand that data received via this form will be used only to provide information about CISM and its activities, within the limits set by the Italian legislative decree no. 196/2003 and subsequent amendments.

Complete information on CISM's privacy policy is available at www.cism.it.

I have read the "Admission and Accommodation" terms and conditions and agree.

Date _____ Signature _____