

Trends in Numerical Fluid Mechanics

Annual Meeting of the *Numerical Methods of Fluid Mechanics Group*
Fluid Mechanics Division of the Mechanics Committee of the Polish Academy of Sciences
IPPT, 26 October 2009, Warsaw

This one-day meeting is jointly organised by the Institute of Fundamental Technological Research of the Polish Academy of Sciences (IPPT PAN) (recently moved to the exquisite new building) and two Institutions of the University of Warsaw, i.e. Interdisciplinary Centre for Mathematical and Numerical Modelling (ICM UW) and the Institute of Geophysics (IGf UW).

We would like to take this opportunity to present current work and opening prospects in broadly understood numerical fluid mechanics at IPPT, ICM and IGf.

The date of the meeting was chosen so that we can include the invited lecture by

Prof. **Hassan Aref** (Tech. Univ. Denmark & Virginia Tech)

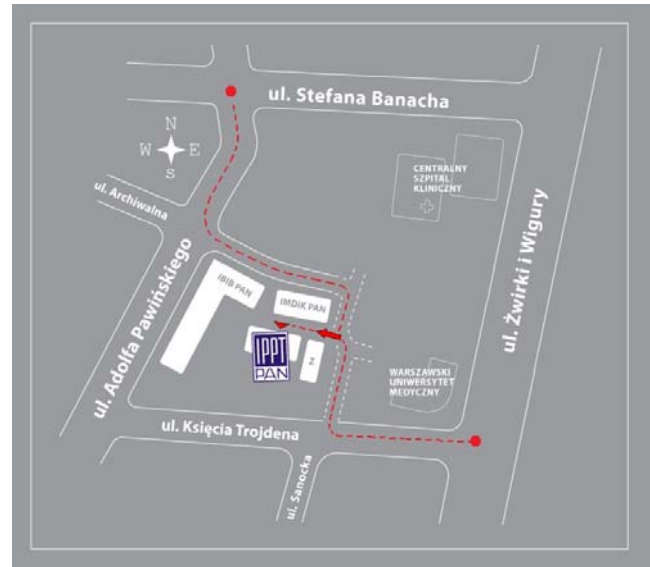
who is one of the world leaders in theoretical and applied fluid mechanics with keen interest in numerical simulations.

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- 1) Please register your participation by sending e-mail to one of the organisers
- 2) We must know the number of people coming to lunch at the new IPPT restaurant by Wednesday Oct. 21. at the latest. Please mention lunch booking in your registration e-mail;
- 3) There are a few guest rooms available in the new IPPT building. If you want to stay overnight, please get in touch directly with Ms. Elżbieta Ryba (eryba@ippt.gov.pl). First come first served!



MAPKA DOJAZDU DO NOWEJ SIEDZIBY IPPT

ul. Pawińskiego 5B, 02-106 Warszawa

<http://www.ippt.gov.pl/img/map.html>

Programme – see overleaf

(possible changes and other info will be on <http://fluid.ippt.gov.pl/>)



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PROGRAMME

IPPT (new venue! ul. Pawińskiego 5B- see overleaf)

10:00 - 11:00	H. Aref (Virginia Tech & Tech. Univ. Denmark) <i>Stability of relative equilibria of three vortices</i>
11:00 - 11:30	Coffee break
11:30 - 11:50	M. Ziemiański (IMGiW) <i>EULAG dynamical core for high-resolution numerical weather prediction model</i>
11:50 - 12:10	E. Tuliszka-Sznitko (PUT) <i>Heat and mass transfer in rotating cavity</i>
12:10 - 12:30	K. Sadlej (IPPT) <i>Modelling bio-molecules in confined-geometry flows</i>
12:30 - 13:00	T. Kowalewski (IPPT) <i>Introduction to IPPT (with sightseeing)</i>
13:00 - 14:00	Lunch
14:00 - 14:20	H. Kudela (Wrocław Technical University) <i>Modeling of the fluid motion caused by the moving objects by vortex particle methods</i>
14:20 - 14:40	B. Rosa (IMGiW, formerly IGF) <i>High-resolution simulation of turbulent collision of cloud droplets</i>
14:40 - 15:00	K. Kwiatkowski (IGf) <i>Simulations of the syngas combustion</i>
15:00 - 15:20	M. Kurska (IGf & ICM) <i>Numerical simulations of quantum vortices</i>

ICM (ICM is next door to IPPT – we will walk there)

15:30 - 16:00	Coffee break
16:00 - 16:40	M. Niezgódka <i>Introduction to ICM</i>
16:40 - 17:00	P. Bała (ICM) <i>GRID computing in Poland</i>
17:00 - 17:20	M. Filocha (ICM) <i>ICM computing infrastructure – new research opportunities</i>
17:20 - 17:50	Possible sightseeing of the ICM computing facilities. Major construction works are under way, so access cannot be guaranteed but we will try

