

**Symposium**  
**Experiments in Fluid Mechanics - EFM 2015”**  
**26-27 OCTOBER 2015**

Location: Institute of Aeronautics and Applied Mechanics  
Room 6, Nowowiejska 24, Warsaw

**AGENDA**

**26.10.2015 Monday**

- 9.30-10.00 Early Coffee break  
10.00-10.15 Opening  
10.15-11.00 **Volkert van Steijn**, *Dynamics of bubbles, droplets, and cells at the micro scale*, TU Delft.  
11.00-12.20 **Microfluidics**
  1. **Adam S. Opalski**, Tomasz S. Kamiński, Magdalena A. Czekalska, Piotr Garstecki, *Passive generation of serial dilutions on a chip for screening of membrane proteins activity*, Institute of Physical Chemistry Polish Academy of Sciences
  2. **Natalya Kizilova**, Artem Baranov, Ija Lucenko, *Separation of rigid and compliant cells of biological suspensions in the tube flow by standing acoustic wave* Kharkov National University, ICM University of Warsaw
  3. **S. Pawłowska**, P. Nakielski, F. Pierini, K. Zembrzycki, T. A. Kowalewski *Mobility of nanofilaments*, Institute of Fundamental Technological Research, Polish Academy of Sciences
  4. **Piotr M. Korczyk**, *Microfluidic geometries for precise manipulations on droplets*, Institute of Fundamental Technological Research Polish Academy of Sciences

12.20-13.20 Tour around the new LATiS laboratory  
13.20-14.15 Lunch  
14.15-15.00 **George Barakos**, *Numerical and Physical Experiments, the Best of Two Worlds* , University of Liverpool  
14.45-15.45 **Aerodynamics**
  5. **Anna Kucaba-Pietal**, Mariusz Szewczyk, Robert Smusz, Pawel Rzucidlo, Klaus de Groot, Joerg Meyer, *Experimental in-flight boundary layer measurements by IRT on RUT PW-6 glider in frame of AIM2 Project* Rzeszow University of Technology (RUT); German Aerospace Center (DLR)
  6. **Wit Stryczniewicz**, Robert Placek, Katarzyna Surmacz, *PIV measurements of a transonic flow over an airfoil*, Institute of Aviation
  7. **Robert Placek**, Marek Miller, Paweł Ruchała *The roughness position influence on laminar aerofoil performance in transonic flow regime* Institute of Aviation

15.45-16.15 Coffee break  
16.15-17.30 **Aerodynamics and Transition**
  8. **Konrad Gumowski**, Sławomir Kubacki, *Laminar-turbulent transition in adverse pressure gradient*, Warsaw University of Technology IAAM
  9. **Rafał Dalewski**, K. Gumowski, T. Barczak, J. Godek, *Manufacturing related issues in testing of RPM made CRP ducted drives*, Warsaw University of Technology, IAAM Warsaw University of Technology, IMP
  10. **Marcin Drzewiecki**, *Measurements of the free-stream turbulence in the*

*new LATiS wind tunnel*, CTO - Ship Design and Research Centre

11. **Lukasz Klotz**, G. Lemoult, K. Gumowski, J.E. Wesfreid, *New experiment in shear flows with zero mean advection velocity*, Ecole Superieure de Physique et de Chimie Industrielles de Ville de Paris, PMMH

**20.00 Experimental Dinner**

**27.10.2015 Tuesday**

9.00-9.45 **Eurika Kaiser**, *Low-dimensional modeling and control of shear flows using cluster analysis*, Universite de Poitiers

9.45-10.20 Coffee break

10.20-12.00 **Separation and Turbulence**

12. **Janusz Telega**, Ryszard Szwaba, Piotr Doerffer, *Influence of Surface Roughness on the Intensity of Heat Transfer under a Single Impinging Jet*, Institute of Fluid-Flow Machinery (IMP PAN)

13. **Piotr Kaczyński**, Ryszard Szwaba, Piotr Doerffer, *Laminar and Turbulent Shock Wave Boundary Layer Interaction on the Compressor Blade*, Institute of Fluid-Flow Machinery (IMP PAN)

14. **Artur Drózdź**, Witold Elsner, *Amplitude modulation and its relation to convection velocity in turbulent boundary layer*, Czestochowa University of Technology, Institute of Thermal Machinery

15. **Paweł Gil**, Piotr Strzelczyk, *Morphology of synthetic jet*, Rzeszow University of Technology, The Faculty of Mechanical Engineering and Aeronautics, Department of Thermodynamics and Fluid Mechanics

16. **Agnieszka Pawłowska**, S. Drobnik, P. Domagała, *CTA and LDA study of the evolution of near flow field for low Reynolds number jet*, Institute of Thermal Machinery, Czestochowa University of Technology

12.00-12.45 **José Eduardo Wesfreid**, *Nonlinear effects observed in experiments in instabilities and transition to turbulence*, Ecole Superieure de Physique et de Chimie Industrielles de Ville de Paris, PMMH

12.45-13.40 Lunch

13.40-15.20 **Low Re flows and droplet dynamics**

17. **Kornel Gibiński**, Maciej Skarysz, Jacek Rokicki, Sophie Goujon-Durand, Jose Eduardo Wesfreid, *Wake behind the rotating 3D bodies for moderate Reynolds number*, Warsaw University of Technology, Institute of Aeronautics and Applied Mechanics; Ecole Superieure de Physique et de Chimie Industrielles de Ville de Paris, PMMH

18. **Maria L. Ekiel-Jezewska**, Jakub Nowakowski, *Periodic sedimentation of particles in a viscous fluid*, Institute of Fundamental Technological Research, Polish Academy of Sciences

19. **Michał Remer**, Konrad Gumowski, Grzegorz Sobieraj, Jacek Rokicki, Daniel Pawlak, Maciej Psarski, Grzegorz Celichowski *Dynamic contact angle measurements*, IAAM, Warsaw University of Technology; Department of Materials Technology and Chemistry, University of Lodz

**Atmospheric turbulence**

20. **Imai Jen La-Plante**, Katarzyna Karpinska, Marta K. Kopec, Katarzyna Nurowska, Wojciech Kumala, Herman Gerber, Djamel Khelif, Szymon P. Malinowski, *Measurements of turbulence at stratocumulus top*, Institute of Geophysics, Faculty of Physics, University of Warsaw; Gerber Scientific, Inc., Reston, VA, USA; Department of Mechanical and Aerospace Engineering, University of California, Irvine, CA, USA

21. **Jacek M. Kopeć**, Kamil Kwiatkowski, Szymon P. Malinowski, and Siebren de Haan, *Mode S and ADS-B as a Source of Clear-Air Turbulence Measurements*, Faculty of Physics, University of Warsaw;

Interdisciplinary Centre for Mathematical and Computational Modeling,  
University of Warsaw; Weather Service - Research and Development,  
KNMI, De Bildt, The Netherlands

15.20-16.00 **Measurement techniques**

22. **Alex Nila**, *Fluid-Structure Interaction Studies Using Optical Measurement Techniques*, LaVision GmbH, Germany, Goettingen

23. **Joachim Deppe**, Dirk Michaelis, *Shake-the-Box: Lagrangian particle tracking at unprecedented tracer particle density*, LaVision GmbH, Germany, Goettingen

16.00-16.30 Tour around the new LATiS laboratory

16.30-17.30 **Meeting of the Subcommittee of Fluid Mechanics of Polish Academy of Science (Room 110) -- held in polish**

**The Symposium is Organized by:**

- Committee of Mechanics, Polish Academy of Sciences
- University Centre for Aeronautics and Astronautics, Warsaw University of Technology
- Institute of Aeronautics and Applied Mechanics, Warsaw University of Technology
- Institute of Fundamental Technological Research, Polish Academy of Sciences, Warsaw
- Polish Pilot ERCOFTAC Centre, Warsaw University of Technology

**Organisers:**

Prof. Piotr Doerffer, Prof. Stanisław Drobniak, Prof. Tomasz Kowalewski,  
Prof. Jacek Rokicki (Chairman), Prof. Jacek Szumbariski