

## FOREWORD

The presented selected papers have been prepared for the XVIII Polish National Conference of Fluid Mechanics taking place at Jastrzębia Góra, 21–25 September 2008. The papers illustrate the present state of the Polish Computational Fluid Dynamics (CFD). There is no doubt that the level of the presented papers is high, referring in some cases to results from international projects. There are several groups in Poland strongly involved in CFD methods development but many more are involved in numerical simulations of flows in order to better understand the underlying physics.

Polish National Conferences of Fluid Mechanics are organized since 1974. The main topics of interest are:

1. Aerodynamics
2. Physics of linear and nonlinear fluids
3. Hydromechanics of ships
4. Fluid-flow machinery
5. Multiphase fluid mechanics
6. Mechanics of atmospheric motions
7. Experimental methods in fluid mechanics
8. Computational methods in fluid mechanics
9. General fluid mechanics
10. Turbulence

The thematic spread of the conference topics causes that on one hand the papers deal with very basic mathematical approaches to flow physics and modeling and on the other with engineering problems tackled with modern numerical methods. Both types of tasks are challenging and important.

For the Local Organizing Committee

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