

Preface

This issue of the Archives of Mechanics contains a selection of papers presented at the 36-th Solid Mechanics Conference held in Gdańsk, Poland, on September 9–12, 2008.

The Conference was organized by the Institute of Fundamental Technological Research of the Polish Academy of Sciences. It follows the traditionally organized series of conferences initiated by the 1st Polish Solid Mechanics Conference in 1953. During the conference, a number of prominent researchers visited Poland, presented their recent results and established permanent cooperation with Polish partners, often resulting in valuable joint research results. Jointly 220 papers have been presented, half of them being authored or co-authored by foreign researchers, and 8 invited plenary lectures have been delivered.

The progress in mechanics, both theory and technology, is so rapid that every two years when the Conference is organized we are forced to pay attention to new ideas in all areas of solid mechanics. This time the conference concentrated on such fields as:

- Biomechanics,
- Micromechanics,
- Geo-mechanics,
- Elastic-plastic continuum and other field theories of solids,
- Fracture and damage mechanics and fatigue of advanced materials,
- Thermomechanics,
- Phase transitions and shape memory materials,
- Mechanics of structures and optimization,
- Shells: theory and computations,
- Coupled problems: thermodynamics of solid–fluid systems,
- Smart structures,
- Computational aspects of solid mechanics and applications.

These topics were addressed in twelve Solmech 2008 sessions. During the Conference two special sessions were dedicated to Professors Wojciech K. Nowacki and Bogdan Raniecki on the occasion of their 70 birthdays. They made significant scientific contributions to several branches of solid mechanics and educated a large number of researchers.

The Conference Organizers are grateful to the authors of the conference presentations for careful preparation of the manuscripts and to all our colleagues involved in organization of the conference for their continued support and help. On behalf of the Scientific and Organizing Committees of the Conference, we express our grateful acknowledgment to the Editorial Board and we wish to thank the Authors who have contributed to this special Conference issue.

Warsaw, June 19, 2009

Zbigniew Kotulski

Włodzimierz Sosnowski

Chairmen of the 36-th Solid Mechanics Conference
