

## STEFAN ZAHORSKI (1933–1999)

### OBITUARY



On 28<sup>th</sup> of August, 1999 passed away Professor Stefan Zahorski, PhD, DSci., director of Polymer Physics Group, Institute of Fundamental Technological Research (IFTR), Polish Academy of Sciences in Warsaw, active member of the Editorial Committee of *Archives of Mechanics*.

Stefan Zahorski, was graduated MS from the Department of Mechanical Engineering, Warsaw University of Technology. He worked in the University as a senior assistant between 1954 and 1961. In 1961 he joined IFTR, where he was worked until his last days. He obtained the PhD degree in Warsaw University of Technology (1961) and DSci. degree in the Institute of Fundamental Technological Research (1966). In 1972 S. Zahorski was promoted to the position of Associate Professor and in 1981 – Full Professor.

The main fields of research interests of Stefan Zahorski concentrated on continuum mechanics and nonlinear flows of viscoelastic fluids. His original research philosophy consisted in analyzing relatively *simple, well defined motions* applied to nonlinear viscoelastic fluids, often as general as the *Noll simple fluid*. Specific assumptions about the kinematics made possible obtaining analytical solutions and discussion of nonlinear effects in viscoelastic fluids without being too specific about the constitutive equations. S. Zahorski studied, also *flows with proportional stretch history* (generalization of the Coleman-Noll concept of flows with constant stretch history), *extensional and nearly extensional flows* (e.g. non-uniform elongational flows, elongational flows with superimposed shear waves, *convergent flows*), flows in *opposing jet rheometers, die swell effects*, effects of “*necking*” in isothermal and non-isothermal high-speed fibre spinning, etc.

S. Zahorski published over 100 research papers (mostly in the *Archives of Mechanics* and *J. Non-Newtonian Fluid Mechanics*) and the monograph "*Mechanika przepływów cieczy lepkosprężystych*" (PWN, Warszawa-Poznań 1978) whose English edition "*Mechanics of viscoelastic fluids*" was published in 1981 by PWN and Nijhoff, Warszawa-The Hague.

Professor Zahorski was a member of Polish Society for Theoretical and Applied Mechanics (PTMTS), GAMM and the International Society for Interaction between Mathematics and Mechanics (ISIMM). For many years he was a member of editorial committees of *Mechanika Teoretyczna i Stosowana* (Theoretical and Applied Mechanics), *Mekhanika Polimerov* (Polymer Mechanics, Riga), and *Archives of Mechanics* (Archiwum Mechaniki Stosowanej).

For his scientific achievements, Prof. Zahorski received the *M.T. Huber Prize* awarded by Division IV, Polish Academy of Sciences (1969), *Prize of the Scientific Secretary*, Polish Academy of Sciences (1977), and 1990 the *Polonia Restituta Commandor Cross*.

Professor Stefan Zahorski was a good and friendly man, respected and liked by his friends and collaborators. He will be missed by all of us.

Andrzej Ziabicki