International Journal of Impact Engineering 36 (2009) 991–992

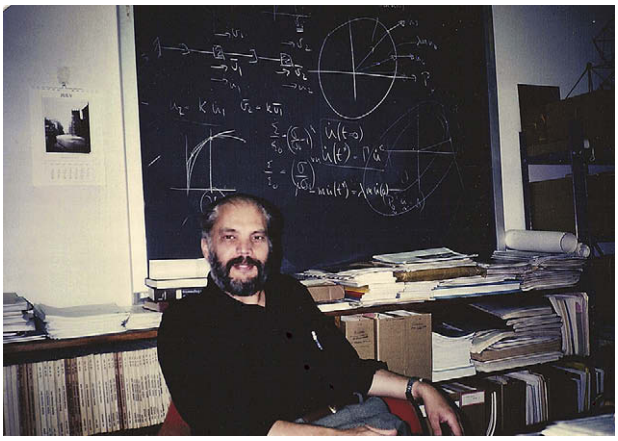
Contents lists available at ScienceDirect

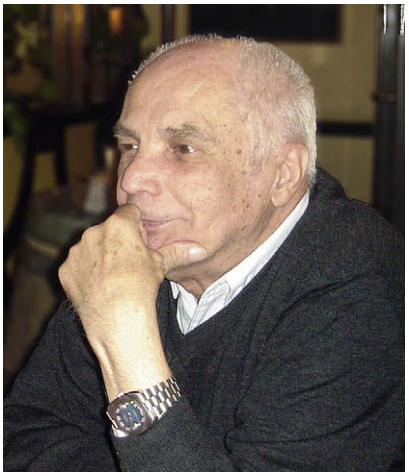
International Journal of Impact Engineering

journal homepage: www.elsevier.com/locate/ijimpeng

Obituary

Obituary of Professor Janusz Roman Klepaczko





Janusz R. Klepaczko was born in Warsaw on 27 February **1935** and passed away in Metz on August 15 **2008** at the age of 73. He graduated from Warsaw University of Technology in **1959** and began his research work in **1960** at IPPT – Institute of Fundamental Technological Research, Polish Academy of Sciences, Warsaw, and continued it until **1984**, becoming an assistant professor in **1983**. Janusz was the PhD student of the well-known Professor Zdzislaw Marciniak from IPPT. He was also a research fellow or visiting professor in many universities in the world before arriving in Metz. He worked in such prestigious universities as Brown (USA), Berkeley (USA), Manitoba (Canada), Kyoto University (Japan) and Centrale Nantes (France). After a first visit to Metz University (France) in **1979**, he obtained a permanent position in France in **1985**. Since **1985**, Janusz R. Klepaczko had been a professor and Research Director at CNRS-France, in the Laboratory of Physics and Mechanics of Materials (LPMM), and had been associated with the Paul Verlaine University of Metz. In LPMM, he was the creator of the experimental laboratory, and was an extraordinary expert in Hopkinson bar techniques. During his career, he developed several original experimental set-ups as, for example, the double shear test (**1994**, **2001**) which allowed high strain rates and large deformations to be reached, which is fundamental for defining the dynamic behaviour of materials and to analyse instability processes such as adiabatic shear band propagation. In the same experimental field, he was a pioneer in the definition of the dynamic behaviour of concrete at high strain rates in tension, and developed the set-ups coupled with a video system allowing for recording the spalling processes (**2001**). In the field of fracture, using experimental observations, Janusz developed novel approaches for predicting the failure of materials using physical assumptions at high strain rates coupled with temperature dependency and loading paths. He worked, from the very beginning, on the definition of a failure criterion based on Critical Impact Velocity concept. His first work on this topic was published in **1968** and the last one in **2005**. Recently, he proposed a failure criterion based on a cumulative deformation to define a critical failure time for brittle or concrete material (**2000–2001**, **2007**). Janusz Klepaczko was also an expert and well-known scientist in the field of constitutive relations based on physical assumptions (**1975–2007**). Since **1997**, he also focused on the description of the dynamic behaviour of materials by coupling phenomenological and physical approaches. In the last decade, he developed an RK model which described the behaviour of over 30 materials. This model has been implemented in some FE-codes (**2005–2008**), and has demonstrated a predictive capability for a wide range of practical engineering problems involving 3D dynamic loading conditions, perforation, ring expansion, dynamic tension, dynamic shearing and others. For Janusz, all scientific goals had solutions and all was possible. For him it was just an "open question" and a matter of time.

Janusz had been active in the field of dynamic behaviour of materials and experimental techniques since **1960** and authored or co-authored over 200 scientific papers and technical reports. He was an editor of three books in the area of fracture dynamics and constitutive equations in dynamic plasticity. The latest was published in **2007** by the Institute of Aviation, Warsaw, Poland. He supervised 30 PhD theses in several research centres around

0734-743X/$ – see front matter
doi:10.1016/j.ijimpeng.2009.02.001

the world, and co-ordinated many industrial projects related to the steel, military, automotive and aviation industries. For several decades, He was a member of the Editorial Board of International Journal of Impact Engineering published by Elsevier. J.R. Klepaczko co-organised and participated in many congresses, conferences and symposiums in different countries, including France, Poland, USA, Japan, Canada. He was involved in research until the end of his life. Janusz was a great researcher and innovative experimenter, with an immense passion for science. He was for us a source of motivation and inspiration. We pay our tribute to him for his teaching and contribution in Science.

Janusz was a very pleasant person who avoided conflict with people and was full of humour during private and professional meetings. On **15 August 2008**, a few hours before he passed away, he was cracking jokes, and had plenty of projects for the future. He was interested in many topics and not only science. He was a gentleman, had a passion for classical music, enjoyed literature, economy, history and politics. He enjoyed watching and playing tennis, played a great game of ping pong and cycled throughout his youth for many years. He loved to cook, and frequently demonstrated his culinary skills by preparing Polish specialties for his friends. He liked long walks, such as our last one on **20 July 2008** in Poland, and nature, and his garden was always full of beautiful roses and other flowers. He was a man with a remarkable work ethic and character. He demanded perfection from himself and others, but was always patient with students as well as his peers. A true gentleman, he always treated people with dignity and respect.

We offer a personal "Thanks" for all his kindness and the time we have spent together since **1993**. Janusz was my professor, my colleague and first of all my friend, I will never forget you.

We miss you and think of you every day Janusz.

Odpoczywaj w spokoju.

Na zawsze pozostaniesz w naszych myślach i sercach.

Będzie mi brakować naszych polskich dyskusji.

Alexis Rusinek*
Agata Rusinek-Jankowiak
Paul Klepaczko
National Engineering School of Metz, Laboratory of Mechanics, Biomechanics, Polymers and Structures, Ile du Saulcy, 57000 Metz, France.
* Corresponding author. Tel.: +33 3 87 31 50 20; fax: +33 3 87 31 53 66.
E-mail address: rusinek@lpmm.univ-metz.fr

Available online 18 March 2009