

In celebration of the 80th Birthday Anniversary of Professor Jarosław Mikielwicz

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At casual discussions with his son, we have realized that 80th birthday anniversary of Professor Jarosław Mikielwicz was approaching quickly (he reached that noble milestone on 10th April 2021). When we contacted him he expressed amazement at how quickly the years had passed, especially the last 5 years since he was feted on his 75th anniversary in Międzyzdroje during the International Conference of Heat Transfer and Renewable Sources of Energy, 10–13 September 2016. Following our will to see and congratulate ‘Jarek’ on his celebration, which is especially important during the present special conditions imposed on us by the coronavirus pandemic we decided to offer a special session devoted to mark the occasion in the frame of the 14th European Turbomachinery Conference coinciding with

the time of the birthday. This conference was organized by the Institute of Fluid-Flow Machinery of the Polish Academy of Sciences (IMP PAN) and Gdańsk University of Technology, Faculty of Mechanical Engineering and Shipbuilding on 12–16 April 2021. The Local Organization chairmen of the conference were prof. Piotr Doerffer and prof. Dariusz Mikielewicz. A special plenary session was organized within the first day of the online conference consisting in two presentations underlying the activities of the jubilee holder related to the development of the domestic combined heat and power plants presented by his son Dariusz and prof. Krzysztof Kosowski (Gdańsk University of Technology) accompanied by four addresses presented by his long time colleagues, that is prof. Ryszard Białecki, corresp. member of PAS (Silesian University of Technology), prof. Roman Domański (Institute of Aviation), prof. Mieczysław Poniewski (Warsaw University of Technology) and prof. Jan Taler, corresp. member of PAS (Cracow University of Technology).

The official plenary session at the conference was followed by a closed meeting of professor with the members of the Committee of Thermodynamics and Combustion PAS.

Professor Jarosław Mikielewicz is a commonly recognized person in Polish science as well as abroad. He devoted practically his entire scientific life to the career at the Institute of Fluid-Flow Machinery PAS, where he went through all stages of employment, ending up with the long term directorship. His PhD process was supervised by prof. Jan Madejski, he also enjoyed scientific disputes with Prof. Robert Szewalski, founder of IMP PAN and his employer. His substantive disputes concerned Prof. Bogumił Staniszewski, Prof. Stefan Wiśniewski or Prof. Jerzy Fiszdon, as his prominent contemporaries.

His major scientific interests encompass issues of engineering thermodynamics, heat transfer and multiphase flows just to mention analysis of modern thermodynamic cycles of power plants and micro heat and power plants with water and low boiling point fluids, flow and pool boiling and condensation issues, non-isothermal vapor-liquid flows, evaporation in thin liquid films, thin liquid film breaking into rivulets, wettability, stability of vapor-liquid two-phase flows in channels, critical flows of vapor-liquid mixtures, natural convection in thermosiphon, modeling of steam separator operation, surface cooling using liquid jets, analysis of non-conventional energy conversion devices and systems including modern heat exchangers.

Amongst the activities enhancing his scientific skills worth mentioning are internships in the most prominent research centres around the world

in the field of heat exchange such as the Institute of Thermal Physics in Novosibirsk, where he personally met prof. Samson Semenovich Kutateladze and Vladimir E. Nakoryakov, consecutive directors of the Thermal Physics Institute of Siberian Division of USSR Academy of Sciences as well as he continued until the retirement a fruitful cooperation with prof. Sergiey V. Aleekseenko. He also stayed at the Institute of Heat and Mass Transfer of the Belarusian Division of USSR Academy of Sciences in Minsk with Leonard L. Vasiliev and prof. Oleg Penyazkov, present Director of A.V. Luikov Heat and Mass Transfer Institute, at the University of Delaware with prof. Jerzy Moszynski, at the University of Michigan with prof. Frederick G. Hammitt, at the Massachusetts Institute of Technology with prof. Warren Rohsenow and prof. Peter Griffith. He got acquainted here with prof. Ejup Ganić, future President of Bosnia and Hercegovina. In the years 1981–1982 he was invited to Brown University, Providence, RI, USA as a Visiting Professor on the invitation of Prof. Joseph Kestin. Here he cooperated closely with prof. Jean Bataille and extended that cooperation further to University of Lyon, following the return of both of them back to their countries. Another contact gained during experience at Brown University was a working contact with Prof. Graham B. Wallis from Dartmouth College. In 1986, as a part of the DAAD scholarship, he spent a month at four German universities, where he developed cooperations with Franz Mayinger (TU Munich) and Ernst-Urlich Schlunder (TU Karlsruhe). In 1988 he stayed for a month at three American universities as part of the American Academy of Sciences invitation, which borne working relationships with Prof. Arthur E. Bergles, John R. Lahey Jr, and Prof. Michael Podowski. In 1991, he stayed in Canada for a month at the invitation of McMaster University hosted by Prof. Chan Y. Ching. Amongst his vital scientific contacts in UK we prof. John Collier, D. Chisholm, John Rose (University College London), J. Derek Jackson (University of Manchester), John Nilson (Strahclyde University), and Barry Azzopardi (University of Nottingham). Above contact obviously does not close the list as there are many more of them, which for apparent reasons cannot be mentioned here.

These facts clearly demonstrate the recognition the Professor enjoys in the scientific society in Poland and abroad. Amongst his personal features it must be mentioned that as a man he is a good and a non-conflict colleague.

We admire the Professor not only for his enormous professional achievements, but above all for the ability to appreciate the other person, even if that person in his research is sometimes burdened with errors and dead ends. This ability, so rare today, to draw attention and patiently guide one

to the right path of reasoning, results in such an excellent reception of the Professor by successive generations of young science adepts, who choose, in our Polish reality, an economically poorer however usually quite satisfactory academic career of existence. Not to be forgotten are his other interests, which are deeply humanistic and are also highly respected, including artistic creativity in areas seemingly distant from complex thermodynamic phenomena, such as painting (a selection of which is presented) and sculpturing. As befits a Renaissance man, here he also achieves the mastery. Communing with such artistically creative interests probably allows him to look at the analyzed issues in the field of thermodynamics and related fields from a broader perspective. Below are some of the samples of his paintings.

We hope that Professor Jarosław Mikielewicz will continue to guide us with his wisdom for many more years to come as we wish him good health and happiness in this 80th year of his exemplary life.



*Tadeusz Bohdal
Piotr Doerffer
Dariusz Mikielewicz*