

## **Editorial**

It is a pleasure to present to our readers this Special Issue of Acta Physica Universitatis Comenianae, dedicated to the 70<sup>th</sup> anniversary of Prof. RNDr. Peter Prešnajder, DrSc.

Peter Prešnajder studied Nuclear physics at the Faculty of Nuclear Sciences and Physical Engineering of the Czech Technical University in Prague (1963–1967), and then Theoretical physics at the Faculty of Mathematics and Physics of the Charles University in Prague, where he graduated in 1968. PhD (formerly CSc.) study in Theoretical physics he completed in 1971 at the Faculty of Natural Sciences of the Comenius University in Bratislava. In 1972 he started to work at this Faculty as an Associate Professor at the

newly established Faculty of Mathematics and Physics of the Comenius University (1990–1999), and finally as a Professor of Physics at the renamed Faculty of Mathematics, Physics and Informatics. During 1992–1998 he was Head of the Department of Theoretical Physics, and during 2004–2008 he was head of the Department of Theoretical Physics and Didactics of Physics. He was also Head of the Physics Section of the Faculty of Mathematics, Physics and Informatics (2011–2017).

He specialized originally in theoretical particle physics, focusing on analytical properties of scattering amplitudes with applications to evaluation of experimental data using analytical functions. From 1980 he has been working in mathematical physics, focusing on gauge field theories, applications of algebraic structures, and quantum systems fuzzy spaces.

Prof. Prešnajder is one of the founders of mathematical physics in Slovakia. He contributed significantly to mathematical physics also in the framework of international collaboration with colleagues at the University of Vienna, Syracuse University, University of Marseille, University of Dublin, University of Helsinki, Czech Technical University in Prague, and with other universities. He has also been frequently a visiting professor in many of these universities. His work in mathematical physics, specifically in applications of methods of geometry in quantum field theory has been highly recognized internationally. He published over 100 original scientific papers (85 in SCI journals) with over 2200 citations (over 2000 in SCI journals). His Hirsch index is 24. He is also a co-author of two books – P. Lichard, J. Pišút, P. Prešnajder: Data Representation by Analytical Functions (Veda, Bratislava, 1983); J. Pišút, V. Černý, P. Prešnajder: Collection of Exercises from Quantum Mechanics (Alfa, Bratislava, 1985). He is also author and co-author of two lecture notes issued by the Comenius University Press (Bratislava).

Prof. Prešnajder has been delivering at the Faculty of Mathematics, Physics and Informatics several lectures on theoretical and mathematical physics. He supervised diploma works of many students, as well as 2 PhD students at the Comenius University in Bratislava. He was also consultant of 4 PhD students at the University of Helsinki, and 9 PhD students at the University of Vienna, IPN in Mexico City and in DIAS Dublin. He was also active in co-organizing conferences and seminars, e.g. in the framework of the *Triangle Collaboration* (Bratislava-Budapest-Vienna), the conference series Hadron Structure (1973–89) as well as dedicated conferences on *Chiral Perturbation Theory and New Application of Geometry in Theoretical Physics* (1995), *Methods of Field Theories* (1997), etc.

He was a member of the Slovak Commission for collaboration with CERN (1990–92), a member of the Slovak Commission for Scientific Degrees (2001–11), and a member of several commissions for defending PhD and DrSc. degrees in General and mathematical physics, Nuclear and particle physics, and in Geometry and topology.

During 2015–2019 he was a member of the COST project QSPACE with participation of 25 institutes. The final project conference he co-organized in Bratislava with attendance of several distinguished scientists, e.g. Professor Sir Roger Penrose, (Oxford University), Professor Sergio Ferrara (Theoretical Division of CERN), and others.

For his scientific, pedagogical and organization activities Prof. Prešnajder was awarded medals of the Faculty of Mathematics and Physics, and Faculty of Mathematics, Physics and Informatics of the Comenius University. He also got in 1986 (together with J. Pišút and V. Černý) the Slovak Literary Fond Award for the book Collection of Exercises from Quantum Mechanics (Alfa, Bratislava, 1985). He is a Merited Member of the Union of Slovak Mathematicians and Physicists (1990).

Prof. RNDr. Peter Prešnajder, DrSc. thanks to his achievements in scientific and pedagogical work has become a well-known physicist who contributed significantly to the development of theoretical and mathematical physics in Slovakia. As a university teacher he has a great share on the education of several generations of Slovak theoretical physicists.

We wish him strong health, happiness in his family and many new and exciting results in his scientific and pedagogical work.

> Pavel Povinec Editor

He was at the beginning of the creation of the E. Schrödinger International Institute for Mathematical Physics of the University of Vienna, where he was a member of the Institutional Board (1993–2010). He was also a member of the editorial board of the *Czechoslo-vak Journal of Physics* (1995–98). During 1995–2005 he was scientific correspondent for *Zentralblatt für Mathematik* (Germany) and *Mathematical Reviews* (USA). He is a regular reviewer for *Physical Review, Physics Letters, Journal of Physics, European Journal of Physics, Journal of High Energy Physics and Sigma*.