

FOREWORD

Our Symposia of Physicists at the University of Maribor, or shortly Christmas Symposia, have a tradition, as this year it is already the 18th one. The purpose is the scientific socializing of Slovenian physicists along with the participation of some distinguished colleagues from abroad as our honorary guests. This year we have ten invited speakers from abroad, from some of the best research groups, so that our meetings remain national with international participation. The meeting is only one of the many activities of CAMTP - Center for Applied Mathematics and Theoretical Physics, which organizes seven series of international scientific meetings. See *www.camtp.uni-mb.si*

We would like to stress that our meeting is devoted to the entire physics, theoretical and experimental, and also applied mathematics and to all other topics, for which physics is important, or they are important for physics.

All lectures are on the level of colloquia, thus understandable for a general physicist, and therefore well suited for students, the undergraduate and graduate students. Such general meetings in the field of physics practically no longer exist in the world, although in our opinion they are important for the widening of the intellectual horizon of all physicists. Our colleagues from abroad, the participants so far, confirm our view and appreciate our scientific programme. The meeting is also an opportunity for the young researchers to present their work and discuss it with the experienced scientists. With this activity we also contribute to the promotion and the popularization of physics in our society. We are convinced that it is quite urgent to care about the more intense popularization of natural sciences in our society, and physics plays a key role in this context. All undergraduate students can attend all the lectures of the conference free of charge. In this way we contribute to the popularization of physics and the education in this field.

At the end we would like to stress that our gatherings are an important contribution to the activities of the Faculty of Natural Sciences and Mathematics (Maribor) and the Faculty of Mathematics and Physics (Ljubljana), and of course also for the institutes IJS in Ljubljana and CAMTP in Maribor.

It is our privilege that the general patron of the Symposium is the European Academy of Sciences and Arts (Salzburg). The opening address on behalf of the Academy will be delivered by Prof. Klaus Mainzer of Technical University of Munich, the Dean of the Class IV. Natural Sciences, who also is an invited speaker.

The meeting is dedicated to the 70th birthday of Professor Willibald Plessas from the University of Graz, Austria, who intensively cooperates with colleagues in Slovenia, as participant and one of the major invited speakers at numerous conferences. At the same time he is an excellent connoisseur of Slovenian physics, and is an important supporter of physics research in Slovenia. Prof. Plessas is a science organizer not only in Austria, where we must underline the world-wide top winter schools on high energy physics in Schladming, where a great number of most outstanding researchers, including numerous Nobel Prize Laureates, participated, but also abroad. Also many international cooperations have been essentially associated with Prof. Plessas, in particular, perhaps, in Russia, and former Soviet Union. Moreover, he held several academic, and also public honorable functions, which connect science and society, in the sense of popularizing science, including being the president of the University of Arts in Graz (Kunstuniversität Graz). The great broadness of his activities is of course just a frame around his numerous excellent scientific research works in the field of theoretical high energy physics, nuclear physics and elementary particle physics, especially chromodynamics. Prof. Plessas is also a member of the European Academy of Sciences and Arts (Salzburg).



Prof.Dr. Willibald Plessas

ORGANIZERS:

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