

FOREWORD

Our Symposia of Physicists at the University of Maribor, or shortly Christmas Symposia, have a tradition, as this year it is already the 16th 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 seven 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 meeting is dedicated to the 75th birthday of Professor Giulio Casati of the University of Insubria, Como, Italy, who over the many past years intensively collaborates with colleagues in Slovenia, and from Slovenia, who were doing research at his institute, and

thus has credit for the development of theoretical physics in Slovenia. Prof. Casati is one of the founders, pioneers and leading researchers in the field of classical and quantum chaos, as well as in the field of quantum computation, and is one of the most prominent theoretical physicists of our era. He is also exceptionally active organizer of science, as he has organized dozens of scientific conferences and schools, mainly in Italy, and is also the founder of the University of Insubria in Como, as well as of the Centro di Cultura Scientifica Alessandro Volta, and of the Lake Como School of Advanced Studies, as well as the founder and main organizer of the traditional international conferences Dynamics Days Central Asia, which in the sense of an "intellectual silk road" connect far Asia with Europe and all the countries in between. He is also a recipient of the Fermi Prize, the highest award for physics in Italy, and is a member of the European Academy of Sciences and Arts.



See https://en.wikipedia.org/wiki/Giulio_Casati

ORGANIZERS:

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