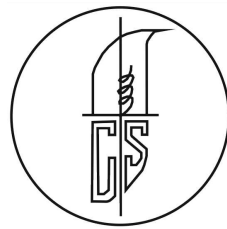


Proceedings of the 17th Czech and Slovak  
Conference on Magnetism  
(CSMAG'19)

Košice, Slovakia, June 3–7, 2019



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## Preface

This proceedings volume contains selected papers presented at the 17th Czech and Slovak Conference on Magnetism “CSMAG’19”, which was held in Košice from June 3rd to June 7th, 2019. The conference was organized jointly by the Faculty of Sciences of the P.J. Šafárik University in Košice and the Institute of Physics, Slovak Academy of Sciences in Košice in cooperation with Slovak Physical Society, Czech Physical Society and Slovak Magnetic Society.

This conference was attended by 288 registered participants, with approximately 40% coming from Slovakia and more than 1/3 delegates coming from neighboring countries (Czech Republic, Poland, Hungary and Ukraine). The remainder of conference delegates came to Košice from various corners of the globe (even as far as Brazil, USA, Japan, China, Taiwan and India). Notably, CSMAG’19 was well attended by young generation of magneticians, continuing the trend of strong Ph.D. students and postdocs participation in the conference.

The main goal of Czech and Slovak Conferences on Magnetism, first established in 1960, is to enable Slovak and Czech researchers, as well as a number of participants from other countries to present their most recent results and to exchange information about current trends in the field of basic and applied magnetism. The scientific program of CSMAG’19 covered different areas of basic and applied magnetism such as theoretical problems of magnetically ordered materials, magnetization processes, amorphous and nanocrystalline soft magnetic materials, magnetic materials for energy applications, thin films, multilayers and surfaces, rare-earth and  $5f$  magnetic systems, strongly correlated electron systems, molecular and low dimensional magnetism, ferrofluids, magnetic properties of superconducting materials, multifunctional magnetic materials and applications of magnetic materials.

The 9 technical sessions comprised 19 invited and 63 contributed talks, as well as 214 poster presentations. We would like to express our gratitude to the invited speakers for delivery of high level talks that covered most recent developments in the area of their scientific expertise. There is no doubt that all subjects treated in these invited lectures and also in the contributed talks were of great interest for audience. Two poster sessions presenting a number of the original scientific results were also well attended.

In addition to the technical sessions, the CSMAG’19 attendees relish the opportunity to network and socialize during welcome reception, concert and traditional barbecue, which took place this time in the Botanical Garden of P.J. Šafárik University. We hope that the conference accomplished all expectations of participants regarding both scientific program and social events. We would like to express our thanks to all institutions and sponsors that have afforded a financial help to the conference.

The contributions to the scientific program are reflected in these proceedings. We wish to express our special thanks to all members of the CSMAG’19 publication team headed by Dr. J. Kováč for their effort in editing the submitted manuscripts. After a rigorous review process 129 papers have been finally accepted to be included in this special issue of the *Acta Physica Polonica A*.

Pavol Sovák  
Ivan Škorvánek  
*Conference Chairmen*