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- INSTITUTE OF NUCLEAR AND PHYSICAL ENGINEERING, FACULTY OF ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY, SLOVAK UNIVERSITY OF TECHNOLOGY, BRATISLAVA
- ALUMNI CLUB OF THE FACULTY OF ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY, SLOVAK UNIVERSITY OF TECHNOLOGY, BRATISLAVA
- DEPARTMENT OF PHYSICS AND DEPARTMENT OF ENGINEERING FUNDAMENTALS, FACULTY OF ELECTRICAL ENGINEERING, UNIVERSITY OF ŽILINA, ŽILINA
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# PROCEEDINGS

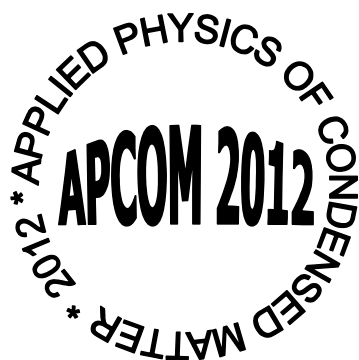
of the **18<sup>th</sup>** International Conference on  
**APPLIED PHYSICS OF CONDENSED MATTER (APCOM 2012)**

*June 20 – 22, 2012*

Hotel Patria, Štrbské Pleso, Slovak Republic

*Partners:*





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- Journal of Electrical Engineering
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The 18<sup>th</sup> International Conference on



## **APPLIED PHYSICS OF CONDENSED MATTER 2012**

is the 18<sup>th</sup> international conference in the series of events started in the year 1995 with the workshop "Solid State Physics and Radioactive Irradiation". Next three years the name of this workshop was „Effect of Non–Standard External Factors on Physical Properties of Solids“. Since 1999, its name was transformed to current name "Applied Physics of Condensed Matter" (APCOM). APCOM provides a unique opportunity for experts in the field of applied physical research of condensed matter to come together and share their visions of future development and in the area of application of devices for example in electrical and nuclear power engineering, electronic and optical communication etc. The main focus of the conference is on presentation of both theoretical and experimental results, partly also of both computer simulation results and specific measurements techniques in the investigation of physical properties and structure of bulk solids and structures, thin solid films, ultrathin organic polymer films, micro- and nanostructures *etc.*, exposed to the influence of the wide-range specific external factors (electrical, magnetic, thermal, high-frequency electromagnetic waves, optical and ionized radiation, ion and elementary particles beams and so on).

### **Main content areas:**

1. New materials and structures (incl. nanostructures and thin films), their analysis and specific applications.
2. Physical properties and structural aspects of solid materials and their influencing.
3. Optical phenomena in materials, photovoltaics and photonics, new principles in sensors and detection methods
4. Nuclear science and technology (with emphasis on the influence of irradiation on physical properties of materials and radiation detection).
5. Computational physics and theory of physical properties of matter.
6. Biophysics and interdisciplinary physics of condensed matter.