

## The 2<sup>nd</sup> CONFERENCE of POST-UP II

Date: **February 18 – 19, 2015**

Venue: **Best Western Hotel Prachárna**

Křelovská 91, 779 00 Olomouc

## PROGRAM

**February 18, 2015**

**12.30–13.00 Registration**

**13.00–13.15 Opening Ceremony, Prof. RNDr. Jitka Ulrichová, CSc.**

### Natural Sciences

Venue: Room No. 1

13.15–13.30 Jiří Kvita, Ph.D., Faculty of Science, Regional Centre of Advanced Technologies and Materials, Department of Optics  
*„Exploring the pseudop-top quark concept with the ATLAS detector at CERN“*



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INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

- 13.30–13.45 Daniel McNulty, Ph.D., Faculty of Science, Department of Optics  
*„Activating entanglement from nonclassical correlations“*
- 13.45–14.00 Bohumil Stoklasa, Ph.D., Faculty of Science, Department of Optics  
*„Quantum enhanced wavefront sensing“*
- 14.00–14.15 Hamed Saberi, Ph.D., Faculty of Science, Department of Optics  
*„Integrated quantum technologies“*
- 14.15–14.30 Cristian Nistor, Mgr. Ph.D., Faculty of Science, Department of Optics  
*„Diffractive dispersion correction in white light SLM imaging“*
- 14.30–15.00 **Coffee break**
- 15.00–15.15 Daniel Šimíček, Ph.D., Faculty of Science, Department of Geology  
*„Sequence stratigraphic and provenance analyses of sedimentary archives using gamma-ray spectrometry“*
- 15.15–15.30 Petr Kladivo, Ph.D., Faculty of Science, Department of Geography  
*„State of the future index – global and national concept“*
- 15.30–15.45 Lorenzo De Bortoli, Mgr., Ph.D., Faculty of Education, Department of Biology  
*„Leafing through in the Czech Museums: taxonomy and taphonomy of the Miocene oysters from Carpathian Foredeep in Moravia“*
- 15.45–16.00 Petr Dvořák, Ph.D., Faculty of Science, Department of Botany  
*„3 billion years of cyanobacterial global dominance and the origins of photoautotrophic life on Earth“*
- 16.00–16.15 Daniel Hanley, Mgr., Ph.D., Faculty of Science, Department of Zoology and Laboratory of Ornithology  
*„Acceptance thresholds and egg discrimination vary by colour“*



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**February 19, 2015**

**8.30–9.00** Registration

**Humanities and Applied Sciences**

Venue: Room No. 1

9.00–9.15 Pavel Bureš, JUDr., Ph.D., DEA, Faculty of Law, Department of International and European law  
*„Looking for « right understanding » of Human rights in the case-law of EctHR”*

9.15–9.30 Maxim Tomoszek, JUDr. Ph.D., Faculty of Law, Department of Constitutional Law  
*„Essential Core of Fundamental Rights as a part of essential requisites of rule of law and democracy”*

9.30–9.45 Ondřej Svaček, JUDr. Ph.D. LL.M., Faculty of Law, Department of International and European Law  
*„Al-Bashir before the International Criminal Court”*

9.45–10.15 **Coffee break**

10.15–10.30 Jana Kučerová, Ph.D., Faculty of Medicine and Dentistry, Department of Biology  
*„Molecular biology of congenital erythrocytoses”*

10.30–10.45 Lucie Láníková, Ph.D., Faculty of Medicine and Dentistry, Department of Biology  
*„β-Thalassemia Due to Intronic LINE-1 Insertion in the β-Globin Gene”*



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

- 10.45 – 11.00     Aleksey Zholobenko, Ph.D., Faculty of Medicine and Dentistry,  
Department of Chemistry and Medicinal Chemistry  
*„On the mechanism of cardioprotection by the components  
of silymarin“*
- 11.00–11.15     Dušana Majera, Mgr., Ph.D., Faculty of Medicine and Dentistry  
Institute of Molecular and Translational Medicine  
*„Overcoming the radioresistance of DU145 cell line by  
combinational approach“*
- 11.15–11.30     Michal Šiller, Ph.D., Faculty of Medicine and Dentistry,  
Department of Pharmacology, Institute of Molecular  
and Translational Medicine  
*„Deorphanization of cytochrome P450 4X1 and its role  
in metabolism of mammalian alkaloids“*
- 11.30–11.45     Pawel Znojek, Ph.D., Faculty of Medicine and Dentistry,  
Laboratory of Experimental Medicine, Institute of Molecular and  
Translational Medicine  
*„Development and optimization of assays for high content  
screening platform“*
- 11.45–12.00     Jitka Klugarová, Mgr., Ph.D., Faculty of Health Sciences , Centre  
for Science and Research  
*„Partial results of the postdoctoral fellow project focused  
on evidence-based healthcare approach and systematic review  
methodology“*
- 12.00–13.00     **Lunch**
- 13.00–13.15     Sunwoo Lee, Ph.D., Faculty of Physical Culture, Department of  
Recreology  
*„Development, Reliability, and Validity of a Spiritual Health  
Assessment Scale (SHAS)“*



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- 13.15–13.30 Jan Halák, Ph.D., Faculty of Physical Culture, Department of Recreology  
*„Applicability of the phenomenological method in the sport-related research“*
- 13.30–13.45 Jana Sklenařiková, Mgr., Ph.D., Faculty of Physical Culture, Department of Adapted Physical Activity  
*„Inclusion of Students with Special Education Needs in General Physical Education“*
- 13.45–14.00 Miriam Palomo Nieto, Ph.D., Faculty of Physical Culture, Department of Natural Sciences in Kinanthropology  
*„Visual contribution to walking: How is it in children with a risk of motor coordination disorder?“*
- 14.00–14.15 Petr Šťastný, PhDr., Ph.D., Faculty of Physical Culture, Department of Sport  
*„The influence of increased load on lower extremity neuromuscular activity during Farmer´s walk and Walking lunge exercise“*
- 14.15–14.30 Kristína Tománková, Ph.D., Faculty of Physical Culture, Department of Natural Sciences in Kinanthropology  
*„The impact of the percent body fat and body mass index on the plantar pressure distribution during walking in middle aged women“*
- 14.30–15.00 **Coffee break**
- 15.00–15.15 Jan Šmahaj, PhDr., Ph.D., Faculty of Arts, Department of Psychology  
*„The Importance of Work Motivation and Self-realization“*
- 15.15–15.30 Daniel Klimovský, PhDr., Ph.D., Faculty of Arts, Department of Politics and European Studies  
*„Gender Quotas in Local Politics in Europe: Recent development,“*



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*actual state and future challenges”*

- 15.30–15.45 Vlastimil Vohánka, Ph.D., Sts Cyril and Methodius Faculty of Theology, Department of Philosophy and Patrology  
*„The Moral and Modal Epistemology within the Material Value Ethics of Dietrich von Hildebrand”*
- 15.45–16.00 Dana Cibáková, Mgr., Ph.D., Faculty of Education, Department of Czech Language and Literature  
*„Activities to stimulate of cognitive functions”*
- 16.00–16.15 Ivana Lištiaková, Mgr., Ph.D., Faculty of Education, Institute of Special Education Studies  
*„Drama Therapy in International Context”*



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

**February 19, 2015**

**8.30–9.00** Registration

**Natural Sciences**

Venue: Room No. 1

9.00–9.15 Tomáš Ligurský, Ph.D., Faculty of Science, Department of Mathematical Analysis and Applications of Mathematics  
*„Piecewise-Smooth Parameter-Dependent Steady-State Problems“*

9.15–9.30 Martina Chvosteková, Ph.D., Faculty of Science, Department of Mathematical Analysis and Applications of Mathematics  
*„Statistical Intervals“*

9.30–9.45 Marco Cerami, Ph.D., Faculty of Science, Department of Computer Science  
*„Computational Complexity of finite-valued Fuzzy Description Logics“*

9.45–10.15 **Coffee break**

10.15–10.30 Natsaran Saichana, Ph.D., Faculty of Science, Department of Chemical Biology and Genetics  
*„A radical SAM enzyme PqqE from Methylobacterium extorquens AM1 is unusually tolerant to dioxygen“*

10.30–10.45 Sanja Čavar Zeljković, Ing., Ph.D., Faculty of Science, Centre of Region Haná for Biotechnological and Agricultural Research, Department of Protein Biochemistry and Proteomics  
*„Synthesis of natural and synthetic aromatic strigolactones“*



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- 10.45–11.00 Saima Imran, Ph.D., Faculty of Science, Department of Cell Biology and Genetics  
*„The Expression of Aryl Hydrocarbon Receptor (AhR) Target Genes in Brain Cell Lineages Using Human SHSY5Y, Neural Stem Cell And Human Induced Pluripotent Stem Cell Differentiated Matured Neurons”*
- 11.00–11.15 Zoila Gándara Barreiro, Ph.D., Faculty of Science, Laboratory of Growth Regulators  
*„New 9-deaza analogues of cytokinins as tools to study mechanism of cytokinin receptor activation”*
- 11.15–11.30 Helena Saldanha, Ph.D., Faculty of Science, Department of Analytical Chemistry  
*„Mass spectrometry in evaluation of seed dormancy levels in legumes”*
- 11.30–11.45 Pavla Kučerová, Mgr., Ph.D., Faculty of science, Department of Analytical Chemistry  
*„Fibre syringe electrodes for direct desorption to injection space of gas chromatography/mass spectrometry”*
- 11.45–12.00 Malte Kokoschka, Dr. rer. nat., Faculty of Science, Department of Physical Chemistry  
*„TMCDB a QM-benchmark database for druglike Platinumcomplexes”*
- 12.00–13.00 **Lunch**
- 13.00–13.15 Manoj B. Gawande, Ph.D., Faculty of Science, Regional Centre of Advanced Technologies and Materials, Department of Physical Chemistry  
*„The Rise of nanomaterials – Advanced Synthesis and catalytic applications”*
- 13.15–13.30 Žofie Sovová, Ph.D., Faculty of Science, Department of Physical



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Chemistry

*„Are current stratum corneum lipid matrix model able to describe the system on molecular level?“*

13.30–13.45

Ankush Prasad, Ph.D., Faculty of Science, Department of biophysics

*„Formation of electronically excited species and their role in ultra-weak photon emission“*

13.45–14.00

Vít Procházka, Ph.D., Faculty of Science, Department of experimental physics

*„Crystallization of amorphous iron-based alloys“*

The conference is held within the project POST-UP II, reg. No. CZ.1.07/2.3.00/30.0041



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