The Nuclear Physics Division (NPD) of the European Physical Society (EPS) introduces a new EPS–NPD divisional conference.

**ORGANIZER**
The Conference is organized by Nuclear Physics Institute (NPI) of the Czech Academy of Sciences.

**SCIENTIFIC PROGRAM**
The ANP conference will provide an open forum for scientists and engineers working in the wide field of nuclear applications with particular emphasis on energy, health, space, environment, material science, preservation and cultural heritage. This is a unique opportunity for scientists from these different communities to exchange views and foster synergies to find new ways and horizons to the challenges in their field. Moreover, the ANP conference will offer an overview of the current state-of-the-art to young researchers and students, via numerous lectures presented by the leading scientists in a broad range of nuclear physics applications.

Awarding ceremony of the IBA-Europhysics prize will be undertaken by representatives of NPD EPS in the frame of ANP conference in Prague. One of the IBA Europhysics prize winners Prof. Marco Durante will present plenary talk.

**SCIENTIFIC TOPICS**
- Ion beam analytical methods in material science
- Ion and neutron beam irradiation of materials
- Nuclear physics for energy and space technologies
- Nuclear analytical methods for environmental and cultural heritage studies
- Nuclear physics in medicine

**IMPORTANT DATES**
- Abstract submission opening: 1.12.2020
- Abstract submission deadline: 30.4.2021
- Confirmation of the abstract acceptance: 31.5.2021
- Early registration deadline: 30.6.2021

**CONFERENCE VENUE**
Prague, the capital of the Czech Republic, is one of the most attractive and most visited cities in Europe. The city offers its visitors a breathtaking historical atmosphere, presenting architectural masterpieces ranging from the Roman era basilicas to the art nouveau, functionalist and cubist houses of the 20th century. We invite you to visit, among other places, the unique large complex of Prague Castle overlooking the city from one of its hills, to walk over the Charles Bridge built in the 14th century, and to wander the narrow romantic streets of the Lesser Town and Old Town.

**REGISTRATION**
Registration form is available on-line via the conference web page www.anpc2021.cz.
**REGISTRATION FEE**

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<th>EARLY until 30/6/21</th>
<th>LATE from 1/7/21</th>
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<tr>
<td>Regular fee 10,000 CZK (~390 €)</td>
<td>12,000 CZK (~470 €)</td>
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<td>Student fee 7,000 CZK (~272 €)</td>
<td>9,000 CZK (~350 €)</td>
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<td>Accompanying person fee 2,200 CZK (~86 €)</td>
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Regular and Student fee includes: access to all conference sessions, conference materials, coffee breaks, lunches, welcome drink and social event with sightseeing tour of Prague (VAT included).

**Accompanying person fee includes:** welcome drink and social event with sightseeing tour of Prague (VAT included).

**ACCOMPANYING PROGRAM**

**CONFERENCE SECRETARIAT**
AMCA, spol. s r.o.
Academic and Medical Conference Agency
Vyšehradská 320/49, 128 00 Praha 2
T: +420 221 979 351, M: +420 737 357 159, E: amca@amca.cz
www.amca.cz

**CONFERENCE PROGRAM**

**Applied Nuclear Physics Conference 2021 – SCHEDULE**

**Sunday, September 12**
Welcome drink, included in the registration fee

**Wednesday, September 15**
The expositions of the Jewish Museum in Prague
14:00-17:00. The walk with guides (held in English) is not included in the registration fee. Registration is available on-line via the conference web page www.anpc2020.cz

**Trip to Karlštejn Castle**
14:00-20:00. The trip is not included in the registration fee. Registration is available on-line via the conference web page www.anpc2020.cz

**Thursday, September 16**
Social event with sightseeing tour of Prague, included in the registration fee
2 hour guided (walking) tour ends at the restaurant with the buffet dinner.

www.anpc2021.cz
PLENARY AND INVITED SPEAKERS

Opening Plenary

Sylvie Leray
CEA Saclay, France
“Application of Nuclear Physics in various fields” (opening plenary)

Plenary Speakers

Andre Vantomme
Quantum Solid State Physics, KU Leuven, Belgium
“Recent achievements in IBA”

Chiara La Tessa
Trento Institute for Fundamental Physics and Applications (TIF-PA), Trento, Italy
“Nuclear interactions of new ions in cancer therapy: impact on dosimetry – Hadrontherapys”

Marco Durante
Biophysics Department, Director, GSI Helmholtzzentrum für Schwerionenforschung, Germany
“Applied nuclear physics at new particle accelerators”

Mariaelena Fedi
INFN, Florence, Italy
“Small accelerators for cultural heritage - analytical capabilities and historical overview”

Katharina Lorenz
INESC-MN, IPFN, Instituto Superior Técnico, University of Lisbon, Portugal
“Ion Implantation and Radiation Effects in Group-III Nitride Semiconductors”

Invited Speakers

Juha Muhonen
University of Jyväskylä, Finland
“Si quantum technology with implanted donors”

Zdravko Siketic
Ruder Boskovic Institute, Zagreb, Croatia
“MeV SIMS application in material science”

Daniel Primetzhofer
Uppsala University, Sweden
“Development of ion-beam tools for non-destructive composition analysis”

Jan Meijer
Felix-Bloch Institute für Festkörperphysik, Leipzig, Germany
“Deterministic implantation”

Richard A. Wilhelm
TU Wien, Vienna, Austria
“Highly charged ion interaction with surfaces”

Maëlle Kerveno
Maëlle Kerveno, Institut Pluridisciplinaire Hubert Curien, CNRS – Université de Strasbourg, Strasbourg
“New challenges for experimental data dedicated to reactor physics”

Juliana Schell
Solid State Physics Coordinator at ISOLDE-CERN

“Solid State Physics at ISOLDE-CERN”

Rene Heller
Helmholtz Zentrum Dresden-Rossendorf, Germany
“Elemental mapping on the nm scale: RBS and IMS in the Helium Ion Microscope”

Peane Maleka
iThemba LABS, Cape Town, South Africa
“Unique high energy neutron beams at iThemba LABS”

Federico Picollo
Physics Department, University of Torino, Italy
“Diamond devices for biological application (lab on chip)”

Thomas Cocolios
KU Leuven, Leuven, Belgium
“Novel radioisotopes for medical applications: the CERN MEDICIS project and beyond”

Marie Davidková
Nuclear Physics Institute, Czech Academy of Sciences, Czech Republic
“Microdosimetry of ionizing radiations and its application in radiotherapy and radioecology”

Pavol Rajec
BIONT, Slovakia
“Recent trends in development of PET radiopharmaceuticals for nuclear medicine.”

Andrew Renshaw
University of Houston, Houston, USA
“Perspectives on Liquid Argon TOF-PET”

Peter Steier
University of Vienna, Vienna, Austria
“New environmental radionuclides: Long-lived fission products detected by Ion-Laser InterAction Mass Spectrometry (ILIAMS)”

Stephan Winkler
iThemba LABS, Cape Town, South Africa
“Research highlights from the iThemba LABS AMS facility in archaeology, environment, and the earth sciences”

Lucille Beck
LMC14/LSCE - Laboratoire des Sciences du Climat et de l’Environnement, Gif-sur-Yvette, France
“IBA and AMS techniques for Cultural Heritage studies”

Jan Kučera
Nuclear Physics Institute, Czech Academy of Sciences, Czech Republic
“Recent achievements in NAA, IBA, and AMS application for cultural heritage investigations at NPI”

Massimo Chiari
INFN, Florence, Italy
“Nuclear physics for the environment and cultural heritage: A LA-BEC experience”

Lyudmila Goncharova
University of Western Ontario, Canada
“Ion beam implantation for Si photonics”

www.anpc2021.cz
Thomas Osipowicz
National University of Singapore, Singapore
"Current status and recent developments of nano-probe microscopies and high depth resolution IBA"

Gaston García
ALBA synchrotron, Barcelona, Spain
"Ion beams and synchrotron light in perspective"

Raquel González Arrabal
Instituto de Fusión Nuclear “Guillermo Velarde”, Madrid, Spain
"Current status and new approaches in the development of Plasma facing materials for nuclear fusion reactors"

Maria Del Carmen Jiménez Ramos
Centro Nacional de Aceleradores, Universidad de Sevilla, Spain
"IBIC microscopy for semiconductor detectors research"

Michal Marčišovský
Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering, Prague, Czech Republic
"Monolithic silicon pixel detectors: a new tool for space radiation monitoring"

Alan Owens
European Space Agency ESA, AURORA c/o ESA - ESTEC, Noordwijk, The Netherlands
"Space radiation, research, detection and shielding"

Oliver Jäkel
German Cancer Research Center, Heidelberg, Ion Beam Therapy Unit, Germany
"Radiotherapy with proton and carbon ions as well as exploring helium and oxygen beams for future use"

Aurélie Gentils
University Paris-Saclay, Orsay, France
"Dual ion irradiation of nuclear materials in situ in a Transmission Electron Microscope at JANNuS"

Ljudmila Benedik
Jožef Stefan Institute, Ljubljana, Slovenia
"Application of NAA in environmental research"