

Applied Nuclear Physics Conference 2020

September 13 – 18
Prague, Czech Republic



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.

IMPORTANT DATES

- Abstract submission open: December 2019
- **Deadline for abstract submission: May 2020** !
- Early registration open: February 2020
- **Deadline early registration: June 2020**

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

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.anpc2020.cz.

REGISTRATION FEE	EARLY until 14/6/20	LATE from 15/6/20
Regular fee	10,000 CZK (-390 €)	12,000 CZK (-470 €)
Student fee	7,000 CZK (-272 €)	9,000 CZK (-350 €)
Accompanying person fee	2,200 CZK (-86 €)	2,200 CZK (-86 €)

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



Sunday, September 13

Welcome drink, included in the registration fee

Wednesday, September 16

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 17

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.

CONFERENCE SECRETARIAT

AMCA, spol. s r.o.

Academic and Medical Conference Agency

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CONFERENCE PROGRAM

Applied Nuclear Physics Conference 2020 – SCHEDULE

	Sunday, 13.9.	Monday, 14.9.	Tuesday, 15.9.	Wednesday, 16.9.	Thursday, 17.9.	Friday, 18.9.
9:00		Plenary talk	Plenary talk	Plenary talk	Plenary talk	Invited talk
9:40		2020 IBA-Europhysics Prize	Invited talk	Plenary talk	Invited talk	Invited talk
10:10		Plenary talk	Invited talk	Invited talk	Invited talk	Invited talk
10:40		Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
11:10		Invited talk	Invited talk	Invited talk	Invited talk	Invited talk
11:40		Short talk	Short talk	Short talk	Short talk	Short talk
12:00		Short talk	Short talk	Short talk	Short talk	Short talk
12:20		Short talk	Short talk	Short talk	Short talk	Short talk
12:40		Lunch	Lunch	Lunch	Lunch	Lunch
13:50		Invited talk	Invited talk	EXHIBITION Companies and infrastructures	Invited talk	Invited talk
14:20		Short talk	Short talk		Short talk	Short talk
14:40		Short talk	Short talk		Short talk	Short talk
15:00		Short talk	Short talk		Short talk	Short talk
15:20		Coffee break	Coffee break		Coffee break	Coffee break
15:40		Invited talk	Invited talk		Short talk	Short talk
16:10	Arrival & Registration	Invited talk	Invited talk	Outing/Social program	Short talk	Short talk
16:40		Short talk	Short talk		Short talk	Short talk
17:00		Short talk	Short talk		Short talk	Short talk
17:20		Short talk	Short talk		Short talk	Short talk
17:40		EXHIBITION Companies and infrastructures	POSTER SESSION & EXHIBITION Companies and infrastructures		POSTER SESSION & EXHIBITION Companies and infrastructures	Closing
18:00	Welcome reception				Sightseeing tour of Prague	
18:20						
18:40						
19:00						
19:20						
19:40						
20:00					Conference dinner	

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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 – Hadrontherapies”

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 Primetzhof

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 SIMS 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”

Thomas Osipowicz

National University of Singapore, Singapore

"Current status and recent developments of nano-probe microscopes and high depth resolution IBA"

Gaston Garcia

ALBA synchrotron, Barcelona, Spain

"Ion beams and synchrotron light in perspective"

Raquel González Arrabal

Instituto de Fusión Nuclear "Guillermo Velarde", Madrid, Spain (materials for nuclear fusion)

"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 Marčíšovský

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"

Aurélié 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"

EXHIBITORS & SPONSORS**MEDIA PARTNER**

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