

## KEY DATES

Call for Abstracts

June 25, 2020

Abstract Submission Deadline

November 2, 2020

Notification of Acceptance

January 15, 2021

Registration Opening

January 18, 2021



# ANIMMA 2021

The 7<sup>th</sup> International Conference on  
Advancements in Nuclear Instrumentation Measurement Methods and their Applications



## APPLICATION FIELDS

Instrumentation and Measurement in:

Fundamental Physics

Space Sciences and Technology

Fusion Diagnostics and Technology

Research Reactors and Particle Accelerators

Nuclear Power Reactors Monitoring and Control

Severe Accident Monitoring

Nuclear Fuel Cycle, Safeguards and Homeland Security

Decommissioning, Dismantling and Remote Handling

Environmental and Medical Sciences

Education, Training and Outreach

## Prague

Clarion Congress Hotel

June 21-25

2021

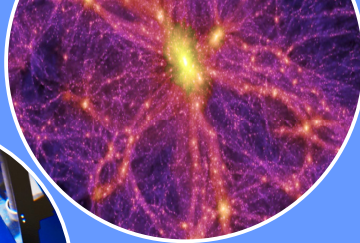
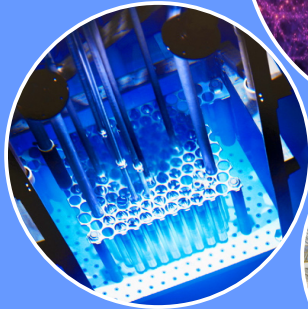
[animma.com](http://animma.com)



# Conference Scope

## ANIMMA

conference brings together scientific, academic and industrial communities interested or actively involved in the R&D related to nuclear instrumentation and measurement methods. The program is focused on instrumentation but emphasizes the latest developments in all measurement stages: signal detection, modelling, electronics treatment, signal acquisition and analysis, modeling interpretation and associated training / education activities. Animma offers an outstanding opportunity for scientists and engineers to meet and discuss new ways to address complex problems and find advanced solutions in nuclear instrumentation and measurement sciences and technologies.



## WORKSHOPS

Several scientific workshops will be proposed on numerical works and on experimental R&D from fundamental physics to direct applications. A detailed program will be available shortly on the conference web site.

**Contact:** Christelle Reynard-Carette  
[christelle.carette@im2np.fr](mailto:christelle.carette@im2np.fr)

## SHORT COURSES

An advanced program of short courses will be offered at the start of the ANIMMA 2021 conference. Starting from the physical principles, the courses will present a selection of applications of radiation detectors as well as nuclear measurements in various fields, including a hands-on demonstration session with state-of-the-art nuclear instrumentation equipment. Updated information, detailed program and schedule will be available shortly.

**Contact:** Ludo Vermeeren  
[ludo.vermeeren@sckcen.be](mailto:ludo.vermeeren@sckcen.be)

## SATELLITE MEETINGS

The opportunity may be given to organize satellite meetings within the ANIMMA scope.

**Contact:** Ivan Stekl  
[ivan.stekl@utef.cvut.cz](mailto:ivan.stekl@utef.cvut.cz)

## INDUSTRIAL EXHIBITIONS

Throughout the conference, a technical exhibition will be constantly available to the participants.

# Scientific Fields

## FUNDAMENTAL PHYSICS

- nuclear and particle physics
- advanced electronics for radiation detection and radiation effects mitigation
- innovative data analysis methodologies

## SPACE SCIENCES AND TECHNOLOGY

- electronics and sensors vulnerability
- very low power and mass sensors
- miniaturization design techniques
- onboard control and data processing units
- robust and hardened architectures

## FUSION DIAGNOSTICS AND TECHNOLOGY

- burning plasma diagnostics
- radiation hardened detectors and electronics
- experimental techniques for high-T plasmas
- high-availability electronics for DAQ and control

## RESEARCH REACTORS AND PARTICLE ACCELERATORS

- calibration and tests of mock-up sensors under laboratory conditions (thermal-hydraulic, mechanical, thermal studies)
- radiation detection
- in-pile measurements of physical parameters including temperature, dimensions, gas release
- accelerator beam diagnostics and characterization
- material testing reactors
- safety experiments
- accelerator beam position monitors
- beam loss/beam profile measurement
- optical diagnostics
- collision rate measurement

## NUCLEAR POWER REACTORS MONITORING AND CONTROL

- nuclear power plants (GEN2, GEN3, GEN3+)
- GEN IV reactors (SFR, LFR, VHTR, GFR,...)
- SMR

## SEVERE ACCIDENT MONITORING

- high temperature and pressure measurements
- radiation measurement in harsh media
- electronics hardening
- wireless and remote robotic measurements

## NUCLEAR FUEL CYCLE, SAFEGUARDS, HOMELAND SECURITY

- radioactive wastes management
- nuclear material and spent fuel
- nuclear fuel cycle facilities
- dismantling operations
- safeguards
- reprocessing plants
- illicit trafficking
- nuclear material control and characterization
- high efficiency neutron measurements
- nuclear fuel control and management

## DECOMMISSIONING, DISMANTLING AND REMOTE HANDLING

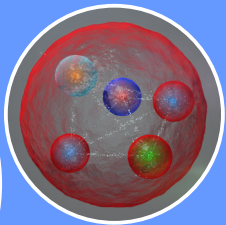
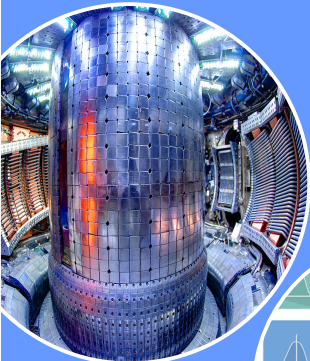
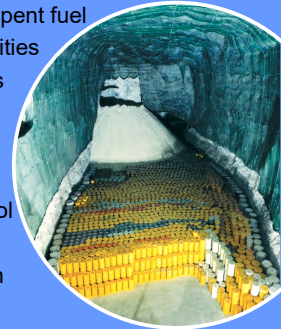
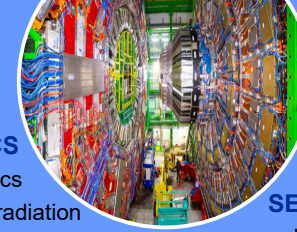
- materials and radioactive wastes management
- techniques and process improvements, radiological characterization, waste treatment, decontamination
- remote handling

## ENVIRONMENTAL AND MEDICAL SCIENCES

- advancements in mass spectrometry measurements
- application of radioactive tracers
- radiography, imagery, tomography
- methods in extreme conditions

## EDUCATION, TRAINING AND OUTREACH

- experimental sciences
- basics in instrumentation and measurement sciences and technologies
- measurement methods and their applications
- PhD. and summer schools, refresh courses
- communicating nuclear to the public



## CONTRIBUTIONS

Detailed instructions for the preparation of the papers, posters and oral presentations will be available on the conference website.

## STUDENT GRANTS

Brand new financial support for students is being prepared. Detailed information will be given on the conference website.



## ABSTRACTS

Authors are invited to submit their abstracts electronically through the Conference website. Please create an account, login and submit the abstract using the Call for Abstracts tab. All abstracts will be reviewed by the scientific committee. Accepted abstracts will be classified as either oral or poster contributions. Notification of acceptance will be sent to each author.

## PUBLICATIONS

All presented papers at the ANIMMA 2021 conference will be published in the Conference Record, which will be available online for all registered participants. The Conference Record will be submitted to the European Physical Journal: Web of Conferences for formal publication.



## COMMITTEE CHAIRS

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Christelle Reynard-Carette  
**Short-courses Organization Chair**  
Ludo Vermeeren

**ABSTRACT  
SUBMISSION  
DEADLINE  
NOVEMBER 2  
2020**

**PLENARY SESSIONS  
ORAL SESSIONS  
INTENSIVE ORAL SESSIONS  
POSTER SESSIONS  
WORKSHOPS  
SHORT COURSES  
INDUSTRIAL EXHIBITS**

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