Call for Abstracts
**JUNE 15, 2026**

Abstract Submission Deadline
**NOVEMBER 12, 2026**

Notification of Acceptance
**JANUARY 15, 2027**

Registration Opening
**JANUARY 15, 2027**

# ANIMMA

PRAGUE CZECHIA **2027**

**JUNE 14-18**

THE 10TH INTERNATIONAL CONFERENCE ON
ADVANCEMENTS IN NUCLEAR INSTRUMENTATION MEASUREMENTS
METHODS AND THEIR APPLICATIONS

# CALL FOR ABSTRACTS

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**CLARION CONGRESS HOTEL** **WWW.ANIMMA.COM** **CONFERENCE@ANIMMA.COM**

# CONFERENCE SCOPE AND FRAMEWORK

## 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, modeling, electronics treatment, signal acquisition and analysis, modeling interpretation an 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.

## ANIMMA INTERNATIONAL SUMMER SCHOOL-AISS

A three full days international school for a maximum of 40 students with an advanced program of courses will be held at the Institute of Experimental and Applied Physics, Czech Technical University in Prague, on June 12-14, 2027.

Starting from the physical principles, the courses will present a selection of applications of radiation detectors as well as nuclear measurements in various fields. The program will also include several classical sessions dedicated to the use of simulation software. Special emphasis will be put on hands-on demonstration sessions 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)

## WORKSHOPS

A 1-day workshop session will be proposed on numerical works and on experimental R&D from fundamental physics to direct applications. Three/Four topics will be addressed in parallel. This workshop session will be held on June 14, 2027, at Clarion Congress Hotel Prague.

A detailed program will be available in due time on the conference website.

**Contact**: Christelle Reynard-Carette (christelle.carette@univ-amu.fr)

## STUDENT GRANTS

Financial support for a selected group of students is available. Best student papers and best posters awards will be offered. Detailed information will be given on the conference website.

## CONTRIBUTIONS

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

## SPONZORSHIP AND INDUSTRAIL EXHIBITIONS

There will be exhibitions accompanying the conference, where industrials as well as research institutes and universities are invited to present and promote their products, offers or services at the conference. Furthermore, a special plenary session dedicated to additional intense promotion of the exhibitors is scheduled. Exhibitors will be also promoted as sponsors.

The sponsors will be listed in all publications related to the conference (on-line program, conference guidelines, printed material, website www.animma.com).

There are several levels of sponsorship. Platinum, gold and silver sponsorship including an exhibition booth as well.

**Contact**: Lorenzina Laera (l.laera@caen.it)

## ABSTRACTS

Authors are invited to submit their abstracts electronically through the Indico conference website: https://indico.utef.cvut.cz/event/54/abstracts/.

Oral and poster contributions are welcome within the ANIMMA 2027 Conference Scope covered by broad field of research applications. Please create a Indico 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 or rejection will be sent to each author.

## PUBLICATIONS

The associated papers to oral and poster contributions presented at the ANIMMA 2027 conference will be formally published as proceedings in the European Physical Journal Web of Conferences with a specific ISBN reference number after a dedicated reviewing process. All ANIMMA 2027 published papers will be available online on the EPJ Web of Conferences. Additionally, a special EPJ-N issue will be devoted to the ANIMMA 2027 conference.

# SCIENTIFIC APPLICATION FIELDS

## INSTRUMENTATION AND MEASUREMENTS IN:

### FUNDAMENTAL PHYSICS AND SPACE SCIENCES

- nuclear and particle physics
- advanced electronics for radiation detection and radiation-effects mitigation
- innovative data analysis methodologies
- simulation and modeling
- electronics and sensor vulnerability assessment
- low-power and low-mass sensors
- miniaturized detector and electronics design techniques
- onboard control and data processing systems
- robust and radiation-hardened architectures

### FISSION AND FUSION RESEARCH REACTORS AND PARTICLE ACCELERATORS

- calibration and qualification of mock-up sensors under laboratory conditions (thermal-hydraulic, mechanical, and thermal studies)
- radiation detection and measurements
- in-pile measurements of physical parameters, including temperature, dimensional changes, and gas release
- material testing reactor safety experiments
- accelerator beam diagnostics and characterization
- beam position, loss, profile, and luminosity measurements
- optical diagnostics for accelerator and plasma systems
- burning plasma diagnostics
- experimental techniques for high-temperature plasmas
- radiation-hardened detectors, electronics, and control systems
- high-availability electronics for data acquisition and control

### NUCLEAR POWER REACTORS AND NUCLEAR FUEL CYCLE

- nuclear power plants (GEN II, GEN III, GEN III+)
- GEN IV reactors (SFR, LFR, VHTR, GFR, etc.)
- advanced modular reactors (AMRs) and small modular reactors (SMRs)
- reactor simulation and modeling and validation experiments
- radioactive waste management
- nuclear materials and spent fuel characterization
- nuclear fuel cycle facilities and reprocessing plants
- dismantling and decommissioning operations
- safeguards, nuclear material accountancy, and control
- nuclear fuel monitoring and management

### SAFEGUARDS, HOMELAND SECURITY AND CBRN

- illicit trafficking detection and prevention
- prompt nucl. measurements for first-responder intervention
- customs, border inspection, and access control systems for radiological materials
- radiological threat detection and identification
- high-efficiency neutron and photon detection and measurement
- active and passive interrogation techniques (X-ray, gamma-ray, and neutrons)

### DECOMMISSIONING, DISMANTLING AND SEVERE ACCIDENT MONITORING

- radioactive waste characterization, treatment, and management
- decontamination techniques and process optimization
- remote handling systems
- high-temperature and high-pressure measurements
- radiation measurements in harsh environments
- radiation-hardened electronics
- wireless, remote, and robotic measurement systems
- severe accident monitoring and diagnostics
- simulation and modeling for decommissioning and accident analysis

### ENVIRONMENTAL AND MEDICAL SCIENCES

- advances in mass spectrometry measurements
- applications of radioactive tracers
- radiography, imaging, and tomography
- Instrumentation and measurement methods for extreme environments and conditions

### CURRENT TRENDS IN DEVELOPMENT OF RADIATION DETECTORS

- current state-of-the-art radiation detectors
- advances in scintillation detectors and materials
- engineering and optimization of scintillation materials
- advances in semiconductor radiation detectors
- emerging radiation detection technologies (sensors, electronics and acquisition systems)

### MACHINE LEARNING AND AI FOR DETECTION AND MEASUREMENT SCIENCES

- machine learning methods for radiation detection and signal processing
- AI-assisted data analysis and event classification
- intelligent monitoring and diagnostic systems
- simulation-driven AI approaches and digital twins
- anomaly detection and predictive maintenance
- autonomous and adaptive measurement systems

### EDUCATION, TRAINING AND OUTREACH

- education and training in experimental sciences
- fundamentals of instrumentation and measurement science
- detection and measurement methods and applications
- PhD and summer schools, training, and refresher courses
- public communication and outreach in nuclear science and technology

KEYNOTE SPEAKERS • PLENARY & PARALLEL ORAL SESSIONS

INTENSIVE ORAL SESSIONS • PERMANENT POSTER SESSIONS

WORKSHOPS • ANIMMA INTERNATIONAL SUMMER SCHOOL

INDUSTRIAL EXHIBITS

# ANIMMA

PRAGUE
CZECHIA

## 2027

## JUNE 14-18

**SUBMIT YOUR ABSTRACT**

ABSTRACT SUBMISSION DEADLINE:
NOVEMBER 12, 2026

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