

# Special Issue

## Medical Applications of Particle Physics, 2nd Edition

### Message from the Guest Editor

The field of new detectors and methods originating from particle physics and used for medical applications is strongly growing. For this reason, there will be a second edition of the Special Issue “Medical Applications of Particle Physics”. In this Special Issue, recent developments and advances in applications as well as state-of-the-art overviews of particle physics in medicine will be collated.

Topics include, but are not limited to, the following:

- Positron emission tomography (PET)
- Single-photon emission computed tomography (SPECT)
- Particle therapy
- Dose monitoring
- Accelerators for particle therapy
- Radiation therapy
- Radionuclide production
- Development of detectors and their applications in medicine
- Fast detectors
- 10ps challenge
- Algorithms for pattern recognition
- Multivariate analysis techniques for medical applications

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### Guest Editor

Prof. Dr. Ivor Fleck

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### Deadline for manuscript submissions

closed (31 March 2026)



## Instruments

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## About the Journal

### Message from the Editor-in-Chief

The realization of dedicated instrumentation has always been a collateral aspect of experimental research. In addition, many groups dedicate efforts and resources solely to the development of new devices, sensors, equipment and large infrastructure, theoretical and numerical studies, and novel experimental methodologies. With *Instruments* we wish to address both established and emerging communities, also to favor the creation of innovative trans-disciplinary approaches. We see *Instruments* as an exciting high-impact journal that will soon hold a leading position in disseminating cutting edge scientific and technological research.

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### Editor-in-Chief

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#### High Visibility:

indexed within ESCI (Web of Science), Scopus, Inspec, CAPIus / SciFinder, INSPIRE, and other databases.

#### Rapid Publication:

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