



European Congress of Medical Physics
Munich, Germany | 11–14 September 2024

In association with the Trination Conference



WELCOME NATION
France



www.ecmp2024.org



© emma/wfs.51ahir | Adobe Stock

Press Release

Presidential Symposium: Leibniz Prize winner presents concept for an electron particle accelerator the size of a microchip

Munich (kf). Medical physicists from all over the world will gather in Munich from 11 to 14 September 2024 for the 5th European Congress of Medical Physics (ECMP). Three internationally renowned pioneers have been invited to the presidential symposium, organised by the two congress presidents Prof. Yolanda Prezado, Santiago de Compostela, and Prof. Katia Parodi, Munich, to discuss promising technological concepts that could change clinical practice in the short to medium term. This symposium is well aligned with the central motto of this congress „Bridging the future: from research to new clinical practices”.

Professor Dr Peter Hommelhoff, experimental physicist at Friedrich-Alexander-Universität Erlangen-Nürnberg and winner of the prestigious Gottfried Wilhelm Leibniz Prize will present the exciting concept of the ‘Accelerator on a Chip’. In his current research project, Hommelhoff is working on making particle accelerators more compact. He and his team are working on an electron particle accelerator that is only the size of a microchip. The aim is to develop a miniature particle accelerator for medical, industrial and research applications. According to the prize winner, this could, for example, enable revolutionary radiation sources with which tumours could be treated in a very targeted manner.

Professor Issam El Naqa is head of the Department of Machine Learning and the Department of Radiation Oncology at the Moffitt Cancer Centre in Tampa. Besides being a pioneer in the innovative use of artificial intelligence (AI) and quantum computing in medical Physics (which he will address in another exciting dedicated session in the congress – 12.09.2024, 14 – 15 p.m. - Quantum computing in medical physics), in this presentation our distinguished guest from US will delve into the timely topic of ionizing radiation acoustics. In particular, he will discuss future prospects and challenges for the clinical application of acoustic waves generated by pulsed ionising radiation with X-rays, electrons and protons for dosimetry as well as imaging during the therapeutic irradiation.

Finally, **Professor Andrew Harrison**, Dolní Břežany / CZ, will give an overview of the latest innovations and prospects of high-power lasers for laser-driven radiotherapy, presenting the new possibilities of the ELI European Research Infrastructure Consortium (ELI, <https://eli-laser.eu/>). Located in Dolní Břežany/Czech Republic, just a few minutes' drive from Prague, the Extreme Light Infrastructure (ELI) offers high-power laser technology with a wide range of applications for applied and basic research. This unique laser technology is suitable for analysing materials and fast processes in atoms, molecules, plasmas or solids, but also for accelerating particle beams. Prof Harrison is thus highlighting another highly interesting concept for the future of modern radiotherapy in addition to Prof Hommelhoff.

Trination Congress President

Katia Parodi, Ph.D.

Ludwig-Maximilians-Universität
München
Experimental Physics – Medical
Physics

Congress President

Yolanda Prezado, Ph.D.

Center for Molecular Research and
Chronic Diseases, Santiago de
Compostela

Scientific Organiser

European Federation of
Organisations for Medical Physics
<https://www.efomp.org/>

German Society for Medical Physics
<https://www.dgmp.de/>

Austrian Society for
Medical Physics
<https://www.oegmp.at/>

Swiss Society of Radiation Biology
and Medical Physics
<https://ssrpm.ch/>

Venue

Science Congress Center Munich
Walther-von-Dyck-Straße 10
85748 Garching (Munich)

Professional conference organiser

Conventus Congressmanagement
& Marketing GmbH | Jena
Nicole Hirsch & Vanessa Pallister
M ecmp2024@conventus.de

Press contact

Katrin Franz

T +49 3641 31 16-281

M katrin.franz@conventus.de



European Congress of Medical Physics
Munich, Germany | 11–14 September 2024

In association with the Trination Conference



WELCOME NATION
France



www.ecmp2024.org



© 2024 by ECMP. All rights reserved.

Presentation of the topic at ECMP 2024:

Presidential Symposium

Friday, 13.09.2024, 11:00 - 12:30 a.m.

- Accelerator-on-a chip (Hommelhoff/Erlangen / DE)
- Ionizing radiation induced acoustics (El Naqa/Tampa, Florida / US)
- Laser-driven radiation therapy: Recent innovations and future directions (Harrison/Dolní Břežany / CZ)

All information and the conference programme can be found at: <https://ecmp2024.org/>

Media representatives are cordially invited to the congress! We look forward to your reports. We will also be happy to put you in touch with contact persons for interviews. Contact: katrin.franz@coventus.de

Trination Congress President

Katia Parodi, Ph.D.

Ludwig-Maximilians-Universität
München
Experimental Physics – Medical
Physics

Congress President

Yolanda Prezado, Ph.D.

Center for Molecular Research and
Chronic Diseases, Santiago de
Compostela

Scientific Organiser

European Federation of
Organisations for Medical Physics
<https://www.efomp.org/>

German Society for Medical Physics
<https://www.dgmp.de/>

Austrian Society for
Medical Physics
<https://www.oegmp.at/>

Swiss Society of Radiation Biology
and Medical Physics
<https://ssrpm.ch/>

Venue

Science Congress Center Munich
Walther-von-Dyck-Straße 10
85748 Garching (Munich)

Professional conference organiser

Conventus Congressmanagement
& Marketing GmbH | Jena
Nicole Hirsch & Vanessa Pallister
M ecmp2024@conventus.de

Press contact

Katrin Franz

T +49 3641 31 16-281

M katrin.franz@conventus.de