School for Proton Therapy Physics

10th-12th July 2025, Prague, Czech Republic

EFOMP in collaboration with the Particle Therapy SIG and the Czech Association of Medical Physics (CAMP) would like to invite you to the next ESMPE on **10th-12th July 2025**.

The school will be aimed at introducing the basic concepts of proton therapy, dosimetry and treatment planning. The school will cover the methods of basic proton physics including acceptance of new proton therapy machine, proton dosimetry, proton treatment planning, in-room and out-of-room imaging ideally customized for proton therapy, and novel technologies such as FLASH and spatial fractionated radiotherapy (SFRT). On the Saturday morning, there will be hands-on practical experience at the Proton Therapy Center Czech Ltd, located in Prague.

This two-and-half day event will be accredited by EBAMP (European Board of Accreditation for Medical Physics) and is intended for practicing clinical Medical Physicists who are involved in nuclear medicine therapies. There will be an optional examination at the end for those seeking a higher level of certification beyond attendance.

ESMPE have decided this event will be in a hybrid format. All lecturers will give their talks on-site in Prague, but participants can choose if they want to attend the school on-site (limited number of participants) or online, it will be live-streamed.

Please note: All times shown are in CET

Content

Introduction to basic proton dosimetry methods.
Commissioning and validation of a new proton therapy center.
Advanced imaging for in-room and out-of-room imaging technology for proton therapy.
Proton treatment planning and robustness.
Motion management for proton therapy.
Workflows.
Practical examples and hands-on experience at the Proton Therapy Center Czech, Prague.

Final exam

The final exam is voluntary. Participants can gain additional credits when successfully pass the test.

Organisers

Richard Amos, Yolanda Prezado (Scientific Chairs)
Joao Seco (Chair of the School)

Faculty

Joao Seco	DKFZ, Heidelberg Germany
Yolanda Prezado	Universidade de Santiago de Compostela, Santiago de Compostela, Spain
Richard Amos	University College London, London, UK
Diego Azcona	Clínica Universidad de Navarra, Madrid, Spain
Loic Grevillot	MedAustron, Vienna Austria
Armin Luhr	Technische Universität Dortmund, Dortmund Germany
Petra Trnkova	Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University in Prague, Prague, Czech republic
Vladimir Vondráček	Proton therapy Center Prague, Prague, Czech

	Session Title	Lecturer
7:30-8:30	*Registration*	
08:30-9:30	Overview of the Course and Introduction to Proton Therapy	Joao Seco, Yolanda Prezado, Richard Amos
09:30-10:15	Setting Up a Proton Facility, Radiation Protection,	Richard Amos
10:15-10:45	*Coffee break*	
10:45-12:00	Proton Therapy Experience at MD Anderson and Loma Linda Hospital	Richard Amos
12:00-13:00	Clinical commissioning of a proton therapy center	Diego Azcona
13:00-14:30	*Lunch break*	
14:30-15:00	Monte Carlo dose calculations methods in proton therapy	Loic Grevillot
15:00-15:30	Introduction into radiation biology and RBE concepts in proton therapy	Armin Luhr
15:30-16:00	*Coffee break*	
16:00-18:00	Single and Dual Energy CT for proton therapy	Joao Seco
18:00-18:30	Adaptive Proton Radiotherapy	Diego Azcona
20:00-23:00	*Social dinner - participants + lecturers*	

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Friday 11th July 2025		
	Session Title	**Lecturer**
08:00-08:30	New technologies and challenges	Yolanda Prezado
08:30-09:45	Experience of commissioning a dual particle centre- proton and carbon ions	Loic Grevillot
09:45-10:15	*Coffee break*	
10:15-12:00	Proton Pre-Clinical Research, Development of Animal Models	Yolanda Prezado
12:00-13:30	*Lunch break*	
13:30-14:00	Proton therapy for ocular melanomas	Petra Trnkova
14:00-14:30	Proton therapy application to pediatric patients	Armin Luhr
14:30-15:30	Overview of the Prague Proton Therapy center	Vladimir Vondráček and Colleagues
15:30-16:00	*Coffee break*	
16:00-18:00	Range Uncertainty Imaging Technology for proton beams	Joao Seco
18:00-18:30	Proton therapy cases treated at Prague Therapy Center	Vladimir Vondráček and Colleagues

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	Session Title	Lecturer
08:00-10:00	Training at the Proton Therapy Facility - Prague	Vladimir Vondráček and Colleagues
10:00-10:30	*Coffee break*	
10:30-12:30	Training at the Proton Therapy Facility - Prague	Vladimir Vondráček and Colleagues
12:30-13:30	*Break before Exam*	
13:30-14:30	Optional final exam (For those seeking a certification beyond attendance)	Yolanda Prezado Richard Amos

Course language	English
Level	Medical Physics / Medical Physics Expert
Registration fee* (2 main meals, 5 coffee breaks, 1 social dinner)	450 €
Reduced registration fee* • subsidized by EFOMP • first-come, first-served policy	150 € - for the first 40 participants (max. 3 from one country) coming from the following European countries: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Estonia, Greece, Hungary, Latvia, Lithuania, Moldova, North Macedonia, Poland, Portugal, Romania, Serbia, Slovak Republic, Spain, Ukraine.
Maximum number of on-site/online participants	60/90
Duration	10th-12th July 2025
Study load	20 hours of lectures and case examples, 1h optional exam
Venue	Department of Dosimetry and Application of Ionizing Radiation, Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University in Prague, Břehová 7, 115 19 Prague 1, CZECH REPUBLIC
GPS coordinates	50°5'27.737"N, 14°24'58.713"E
Accommodation	Individual
Information, programme at:	www.efomp.org
Registration	Electronic registration via www.efomp.org
Registration period	1st November 2024 – 4th July 2025 (4th July 2025 for online participation only)

* payment must be done in 7 days following the pre-registration, otherwise pre-registration will be cancelled and neither free place nor subsidized or ordinary fee can be granted for repeated registration

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