

16-19 June 2021



3rd European Congress of Medical Physics

Embracing Change, Sharing Knowledge



11^o Congresso
Nazionale AIFM

www.ecmp2020.org

VIRTUAL EDITION

ESMPE European School for Medical Physics Experts

Artificial Intelligence

16th June 2021

This one day satellite meeting will be held in conjunction with the 3rd European Congress of Medical Physics and teaching sessions covering the main topics of Artificial Intelligence (AI) and focusing mainly on Machine Learning (ML) and Deep Learning (DL).

These methods are becoming increasingly essential in the field of medical physics and healthcare in general. The methods are also developing fast and there is a clear need to provide training of the fundamentals and recent findings concerning AI/ML/DL techniques to medical physicists in Europe. This is the motivation to create this ESMPE module.

The event will be accredited by EBAMP (European Board for Accreditation in Medical Physics) and is intended for practising clinical Medical Physicists who are involved in any of our sub-fields.

The main lecture topics are related to radiology and radiation therapy applications.

Mika Kortnesniemi, Annalisa Trianni (Scientific Chairs)

Alberto Torresin (Chair of the School)

FACULTY

Angel Alberich Bayarri - Valencia, Spain

Wouter Crijns - Leuven, Belgium

Mika Kortnesniemi - Helsinki, Finland

Teemu Mäkelä - Helsinki, Finland

Peter van Ooijen - Groningen, The Netherlands

Annalisa Trianni - Udine, Italy

Jonas Teuwen - Nijmegen, The Netherlands

Alberto Torresin - Milano, Italy

Federica Zanca - Leuven, Belgium



ASSOCIAZIONE ITALIANA
di FISICA MEDICA e SANITARIA

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Day Satellite Meeting - Programme

8:00 Registration.

Morning session - Chairs: *Annalisa Trianni [IT], Mika Kortnesniemi [FI]*

9:00 **Opening of the AI satellite event**

Why are we here? *Mika Kortnesniemi [FI], Annalisa Trianni [IT]*

9:15 **Artificial intelligence**

Artificial Intelligence explained from the basics. *Jonas Teuwen [NL]*

10:15 *Coffee break*

10:30 **Main applications of AI**

Main applications of AI in radiation therapy. *Wouter Crijns [BE]*

11:15 Main applications of AI in diagnostic imaging. *Angel Alberich Bayarri [ES]*

12:00 *Lunch break*

Afternoon session - Chairs: *Alberto Torresin [IT], Annalisa Trianni [IT]*

13:00 **Roadmap to future: clinical applications**

Solving the challenges in data access, curation, ethical and legal issues. *Peter van Ooijen [NL]*

14:00 *Coffee break*

14:15 **Practical demonstration**

Practical demonstration of Deep Learning in image segmentation. *Teemu Mäkelä [FI]*

15:00 **Education of medical physicist**

The future role, competence and education of medical physicist in the era of AI. *Federica Zanca [BE]*

15:45 **Discussion**

Panel discussion and closing remarks



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This course is accredited by EBAMP as CPD event for Medical Physicists
at EQF Level 8 and awarded 14 CPD credit points.

Further Information

Course language: English

Level: MPE

Registration fee (meal & coffee breaks): € 50,00 + VAT

Duration: 16th June 2021

Study load: 6 hours of lectures and discussions

Venue: virtual with live lectures

Information, programme at: www.efomp.org

Registration: electronic registration via www.ecmp2020.org

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