IEEE Dresden 2008

Short course program

Final - 29 June 2008

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Overview

5 NSS short courses:
• Basics of particle and radiation detection (2 days: 10/18-19)
• Silicon detector application in medicine, biology, safety and astrophysics (4 h: 10/18)
• Simulation techniques using Geant4 (8 h: 10/18)
• Front-end electronics for particle detectors in astroparticle, particle physics and medicine (8 h: 10/19)
• How to use the grid for physics and medical applications (8 h: 10/19)

5 MIC short courses:
• Image quality in adaptive and multimodality imaging (4 h: 10/20)
• Image reconstruction (8 h: 10/20 has to be moved on 10/21)
• Ion beam therapy: principles and quality assurance (8 h: 10/21)
• The Monte Carlo method and its applications in medical imaging (8 h: 10/21)
• PET pharmacokinetic course (2.5 days: 10/19-21)

Basics of particle and radiation detection

Organizers: Glenn Knoll, University of Michigan and Fabio Sauli, CERN

2 days: 18-19 October

Includes the textbook 'Radiation Detection and Measurement', 3rd Edition, by G. Knoll

275 € by October 5, 330 € later for IEEE members
330 € by October 5, 400 € later for non-members

Silicon detector applications in medicine, biology, safety and astrophysics

Organizers: Lothar Strüder and Peter Lechner, Semiconductor Lab, MPI for Physics and Extraterrestrial Physics, München

4 h: 18 October

Includes the textbook "Semiconductor Radiation Detectors" by G. Lutz

150 € by October 5, 200 € later for IEEE members
200 € by October 5, 250 € later for non-members

Simulation techniques using Geant4

Organizer: Maria Grazia Pia, INFN, Genova

8 h: 18 October

Includes a CD with Geant4 source code and libraries, examples and further training material

125 € by October 5, 150 € later for IEEE members
150 € by October 5, 180 € later for non-members

Front-end electronics for particle detectors in astroparticle, particle physics and medicine

Organizers: Helmuth Spieler and Peter Denes, Lawrence Berkeley National Laboratory

8 h: 19 October

Includes a textbook "Semiconductor Detector Systems".

200 € by October 5, 240 € later for IEEE members
240 € by October 5, 290 € later for non-members

How to use the grid for physics and medical applications

Organizer: Patricia Méndez Lorenzo and Jakub T. Moscicki, CERN

8 h: 19 October

The participants will have an opportunity to get involved into using the Grid beyond the scope of the course and get further support for their applications

125 € by October 5, 150 € later for IEEE members
150 € by October 5, 180 € later for non-members

Image quality in adaptive and multimodality imaging

Organizers: Harrison Barrett, Matthew A. Kupinski, Lars R. Furenlid, University of Arizona

8 h: 20 October

125 € by October 5, 150 € later for IEEE members
150 € by October 5, 180 € later for non-members

Image reconstruction

Organizer: Paul Kinahan, INFN, Genova

8 h: 20 October -> to be moved on October 21st

125 € by October 5, 150 € later for IEEE members
150 € by October 5, 180 € later for non-members

Ion beam therapy: principles and quality assurance

Organizers: Gerhard Kraft, Fine Fiedler, Wilma K. Weyrather, GSI Darmstadt

4 h: 21 October

125 € by October 5, 150 € later for IEEE members
150 € by October 5, 180 € later for non-members

The Monte Carlo method and its application in medical imaging

Organizers: Michael Ljungberg - University of Lund, Sébastien Jan - CEA Orsay, Eric Larsson - University of Lund, Robert Harrison - University of Seattle

8 h: 21 October

Includes the textbook "Monte Carlo Calculation in Nuclear Medicine: Applications in Diagnostic Imaging", eds. M. Ljungberg, S-E. Strand, and M.A. King, IOP

175 € by October 5, 210 € later for IEEE members
210 € by October 5, 250 € later for non-members

PET pharmacokinetic course

Organizers: Jörg van den Hoff, Forschungszentrum Dresden-Rossendorf, A. Lammertsma, Amsterdam, A. Willemsen, Groningen, N. Leenders, Groningen, P. Maguire, Groton, USA, R. Carson, Yale, USA, R. Gunn, London, V. Cunningham and W. Müller-Schauenburg, Tübingen

2.5 days: 19-21 October

Includes a 100 page manual

225 € by October 5, 250 € later for IEEE members
250 € by October 5, 300 € later for non-members