

# AN INTRODUCTORY COURSE IN PROTON CANCER THERAPY

THE UNIVERSITY OF TEXAS  
**MD ANDERSON**  
CANCER CENTER

*Making Cancer History™*

## FIRST ANNOUNCEMENT

Hosted by: The University of Texas  
M. D. Anderson Cancer Center  
Date: Sunday, 09 May, 2004  
Location: Funchal, Madeira (Portugal)  
Course Fee: 100 Euros (Financially challenged students may apply to have the fee waived.)  
Web Site: <http://www.itn.mces.pt/ICRS-RPS>  
Contact: Wayne Newhauser: [wnewhaus@mdanderson.org](mailto:wnewhaus@mdanderson.org)



In conjunction with the ICRS-10 and RPS-2004 Conference (described on the following pages), the University of Texas M. D. Anderson Cancer Center is offering an intensive one-day introductory training course on proton beam therapy. The course will take place in Funchal, Madeira, on Sunday, 9 May, 2004 and will cover the following topics:

- 1) Brief Introduction to the Historical Development of Proton Therapy
- 2) Physics of Proton Radiation Therapy
- 3) Accelerator Physics: Basic Principles and Practical Aspects for Therapy Applications
- 4) The Clinical Advantages of Proton Therapy: Dose distributions, radiobiology
- 5) Treatment Planning: Proton Absorbed Dose Calculation and Optimization Algorithms
- 6) Quality Assurance Techniques: Instruments, Measurements, and Data Analysis
- 7) Patient information systems for proton therapy: Running a large clinic efficiently
- 8) Neutron Shielding: Proton loss rates, neutron production, shielding and attenuation design
- 9) Proton Therapy Systems: Design Considerations and Options
- 10) Financial, Economic, and Business Aspects of Proton Therapy

The course instructors are recognized experts in their fields and are each presently engaged in proton therapy research and development.

Wayne Newhauser, Ph. D., University of Texas MD Anderson Cancer Center, Houston (USA)  
Markus Fitzek, M. D., University of Essen, Essen (Germany)  
Uwe Titt, Ph. D., University of Texas MD Anderson Cancer Center, Houston (USA)  
Kazuo Hiramoto, Ph. D., Hitachi Corporation, Hitachi-shi (Japan)  
Armin Langenegger, Ph. D., Varian Medical Systems, Las Vegas (USA)  
Phillip Morris, Ph. D., Impac Medical Systems, San Diego, (USA)  
Stanley Rosenthal, Ph. D., Massachusetts General Hospital/Harvard Medical School, Boston (USA)  
Barbara Schaffner, Ph. D., Varian Medical Systems, Baden (Switzerland)

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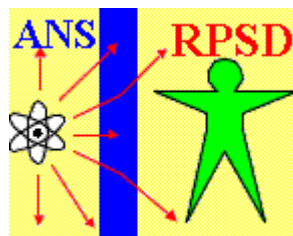
  
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MEDICAL SYSTEMS



## The 10th International Conference on Radiation Shielding and The 13th Biennial Topical Meeting of the Radiation Protection and Shielding Division of the American Nuclear Society

The 10th International Conference on Radiation Shielding (ICRS-10) will be held in conjunction with The 13th Biennial Topical Meeting of the Radiation Protection and Shielding Division of the American Nuclear Society (RPS2004) in Funchal, Madeira, Portugal, May 9-14, 2004. This meeting is cosponsored by the Instituto Tecnológico e Nuclear, Portugal (ITN), the American Nuclear Society Radiation Protection and Shielding Division, and L'Organisation de coopération et de développement économiques/L'Agence pour l'énergie nucléaire (OECD/NEA). In addition to an exciting technical program, social tours are planned, along with tutorials and workshops.

The meeting will be held at the Pestana Carlton Park Hotel in Funchal, Madeira Island, Portugal and the nearby Congress Centre. The 5 star Pestana Carlton Park Hotel enjoys a central location on a cliff-top overlooking the port of Funchal, one of the liveliest areas in town. This excellent location is further enhanced by its proximity to the center of Madeira's capital. The Pestana Carlton Park Hotel is close to the center of Funchal and is part of a development, which includes Madeira's Casino and the purpose – built Madeira Congress Centre. The entire complex was conceived by the world famous architect Professor Oscar Niemeyer, the designer of Brasilia, and is a masterpiece of modern design and construction. Most rooms have sea views and the rooms with island views face either the hotel gardens or the mountains framing Funchal.



# ICRS-10 and RPS-2004 Scientific Program Overview and Track Leaders

(Medical Physics and related topics are shown in red.)

**Accelerator Shielding** (Hiroshi Nakashima)

**Aircraft Dosimetry** (Stefan Roesler/Frank Wissmann)

**Benchmark Experiments and Analyses** (Hamilton Hunter)

**Deterministic and Hybrid Methods** (Alireza Haghighat)

**Dosimetry Issues** (Nolan Hertel/Gianfranco Gualdrini)

**E-Learning in Medical Radiation Physics** (Slavik Tabakov)

**Electron-Photon Data** (Dermott Cullen)

**Medical Physics** (Wayne Newhauser)

**Medical Radiation Protection** (Cornelius Lewis)

**Monte Carlo, Deterministic and Hybrid Methods**

- **Methods and Applications at Electron Accelerators** (Hideo Hirayama)
  - **Methods and Applications at Low Energy Facilities** (Robert Little)
  - **Methods and Applications at Intermediate Energy Facilities** (Jeff Johnson)
  - **Methods and Applications at High Energy Accelerators** (Nikolai Mokhov)
  - **Electron-Photon Monte Carlo** (Stephen Seltzer)

**Nuclear Data** (Mark Chadwick/Luiz Leal)

**Nuclear Data Issues for Transmutation** (Enrique Gonzalez)

**Radiation Detection and Measurement** (Stefano Agosteo)

**Radiation Metrology and Regulation** (Antonio Ferro De Carvalho)

**Radiation Protection** (Marco Silari)

**Radiation Shielding in Aeronautics and Space Missions** (Michael Heilbronn)

**Radiation Shielding of Intense (Spallation) Sources and Related Facilities** (Yacine Kadi)

**Radiation Transport Models** (Jeff Johnson)

**Regulations and Reactor Shielding** (Hans-Gerrit Vogt)

**Track Structure, Nanodosimetry** (Bernd Grosswendt)

**Transmutation Issues** (Bernard Carlucci)

## Additional Topics:

- Build-up Factor, Albedo, and Point Kernel Methods and Applications
  - Fusion Reactor Shielding
  - Impact of Radiation and Radioactivity to the Environment
- Industrial Applications of Radiation
  - Skyshine
  - Source Term Evaluation
  - Visualization and User Interface



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