SCUOLA SUPERIORE
DI FISICA IN MEDICINA
PIERO CALDIROLA

Direttore: Annalisa Trianni

COURSE ON THE BASIS OF SBRT FOR PHYSICISTS

(Second Edition)

CATANIA • 30 May - 1 June 2024

Scientific Coordinator: Pietro Mancosu, *Milan*

Scientific Committee: Francesca Romana Giglioli, *Turin*
Stefania Pallotta, *Florence* - Serenella Russo, *Florence*

In collaboration with Università di Catania

Evento ECM n. 416-413419
Crediti assegnati: 16

Professioni: Fisico Medico,
Oncologo Radioterapista, Radiologo, Medico Nucleare.

Obiettivo formativo: contenuti tecnico-professionali
(conoscenze e competenze) specifici di ciascuna professione,
di ciascuna specializzazione e di ciascuna attività ultraspecialistica,
ivi incluse le malattie rare e la medicina di genere.

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THE COURSE OBJECTIVE

Modern radiotherapy is experiencing a paradigm shift characterized by the progressive reduction in the number of fractions.
Stereotactic body radiotherapy (SBRT), also designed as SABR (stereotactic ablative body radiotherapy), is a radiation therapy approach in which high radiation doses are delivered in few fractions focused on small extracranial tumors with rapid dose fall off outside the target. In particular, SBRT/SABR is becoming elective therapy in several anatomic districts, both for primitive tumors and for metastatic lesions. Technological progress both in imaging and in treatment delivery has favored the adoption of this technique.
The main aim of this three-day course is to assist medical physicists working in both large and small centers, to learn the proper implementation of effective SBRT treatment practice.
The educational program is designed to equip participants with the essential skills indispensable for the careful application of SBRT methodologies. Whilst the course is tailored to address the needs of medical physicists, it extends an inclusive invitation to Radiation Oncologists, radiation therapists, and other professionals engaged in the domain of Radiation Therapy, providing them with the opportunity to engage and derive value from this training seek endeavor.

SCIENTIFIC PROGRAMME

Thursday May 30, 2024

Session 1

Introducing SBRT: Radiobiology and Clinical Issues

Chairs: A. M. Gueli, Catania - S. Pallotta, Florence
L. Raffaele, Catania

13:30 Terminology and History of SBRT. *P. Mancosu, Milan*

14:15 Radiobiology Rationale of SBRT: Tumor Prospective.
L. Minafra, Palermo

15:00 An Overview of Major Clinical Indications and Ongoing Trials.
S. Pergolizzi, Messina

15:45 ***Coffee break***

Session 2

Imaging for Volumes definition from a Physicist Prospective

16:15 PTV Margins for SBRT.
M. Van Herk, Manchester

17:00 Imaging for Target Definition for Non Moving Targets (Brain and Spine).
A. Brogna, Messina

17:45 Imaging for Target Definition in Moving Target (Lung, Liver and Prostate).
P. Mancosu, Milan

Friday May 31, 2024

Session 3

Dosimetry&Planning in SBRT/I

Chair: Gabriella Sabini, Catania

8:30 Small Field Dosimetry (Formalism and Measurements).
S. Russo, Florence

9:15 Algorithms for Dose Calculation and Commissioning.
N. Cavalli, Catania

10:00 Survey Tecnologie in Sicilia. *C. Marino, Catania*

10:45 ***Coffee break***

Session 4

Dosimetry&Planning in SBRT/II

Chair: Nando Romeo, Messina

11:15 Dose Limits for Organs at Risk in SBRT. *G. Sceni, Reggio Calabria*

12:00 SBRT Planning for Non Moving Target: Brain and Spine. *F. Giglioli, Turin*

12:45 SBRT Planning for Moving Target: Liver, Lung and Prostate. *F. Giglioli, Turin*

13:30 ***Lunch***

14:00 Assemblea dei Soci.

Session 5

Image Guided RT

15:00 Overview of Available Delivery Techniques. *G. Iacoviello, Palermo*

15:45 X-ray Guided&MRI SBRT: Intra-Fraction Monitoring, Gating and Tracking. *M. Van Herk, Manchester*

16:30 X-ray Guided SBRT: Inter-Fraction Monitoring and Correction. *G. Sceni, Reggio Calabria*

17:15 Guidance Systems with Non-Ionizing Radiation Systems. *S. Pallotta, Florence*

Saturday June 1, 2024

Session 6

QA and Safety

Chair: Letizia Barone Tonghi, Catania

8:15 Specific QA for Linac SBRT and Dedicated Machines. *C. Siragusa, Messina*

9:00 Patient Pre-Treatment QA and In-Vivo Dosimetry. *C. Marino, Catania*

9:45 FMEA Approach in SBRT. *S. Russo, Florence*

10:30 ***Coffee break***

Session 7

Complementary

Chair: Rosa Costa, Gela

11:00 AI and Automation in SBRT. *G. Stella, Catania*

11:45 Flash and MBRT Dosimetry. *F. Romano, Catania*

12:30 Harmonization of SBRT Procedure and Dose Reporting. *P. Mancosu, Milan*

13:15 Remarks and Conclusions.

INFORMATION

VENUE
Università di Catania - *Piazza Dante 32 , Catania*

REGISTRATION FEES
- **AIFM, AIRO, ESTRO, THASTRO members**: € 250,00
- **Non members:** € 500,00
- **Students AIFM AIRO Members** *(20 places available)***:** € 50,00

The fee includes: admission to all scientific sessions, course kit, refreshments as per program.

REGISTRATION PROCEDURES
The course will be accredited for **80** participants.
The capacity of the main room is 95 seats.
More information available on the website:
www.fisicamedica.it/formazione.

Applications for registration will be accepted according to the chronological order of arrival.

Confirmation of registration will in any case be subject to payment of the fee, which must be made by credit card or bank transfer (the precise instructions are given on the registration form) at the same time as registration. Failure to meet payment leads automatically to forfeiture of the registration. In order to avoid administrative misunderstandings, it is mandatory to send a copy of the bank transfer together with the registration summary issued at the end of the online registration procedure to the organizing secretariat (segreteria.aifm@symposium.it).
It will not be possible to pay the fee during the course.

Registrations will be open until May 20, 2024.

CANCELLATIONS
The course will not take place unless at least 50% of registrations are reached. Any cancellation of the Course will result in a full refund of the registration fee. In case of withdrawal by a participant, the fee will be refunded, net of administrative costs (€20.00), only if the notice of cancellation is sent to the organizational secretariat in writing (e-mail) by May 15, 2024.

OFFICIAL LANGUAGE
English *(simultaneous translation will not be provided).*

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