

HADRON THERAPY SYMPOSIUM

Friday 18th, October 2024

Questions for lecturer Ugo Amaldi (TERA Foundation)

(questions for other lecturers can be found in the respective category on the left)

Questions for Sandro Rossi (CNAO)

1.the carbon gantry in Japan started treating patients yet?

ANSWER: Yes, they did since many years

Questions for Sara Lillo (CNAO)

1. Have you made any attempt to estimate the lateral energy deposition due to target fragmentation

ANSWER:

Treatment planning systems commonly used in clinical practice optimize the dose calculation by considering the dose deposited by the fragments, even if roughly. For medical physics investigations and scientific research, we can adopt Fluka Monte Carlo code for this specific purpose.

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Questions for Angelica Facoetti (CNAO)

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Questions for Sanja Damjanovic (GSI)

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Questions for Sotirios Charisopoulos (IAEA)

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Questions for Manjit Dosanjh

Questions for Maurizio Vretenar (CERN)

1.Thank you! for so interesting speech.

The topic of alpha or carbon beams is so interesting. may you give some bibliographical references about the advantage and disadvantage of both types of beams?. Radiobiological, facility challenges,etc.Thanks!

ANSWER: Thanks for your interest! The best reference to the recent work on treatment with alpha particles is Andrea Mairani *et al* 2022 *Phys. Med. Biol.* **67** 15TR02, DOI 10.1088/1361-6560/ac65d3, accessible under

<https://iopscience.iop.org/article/10.1088/1361-6560/ac65d3> . This is the most complete review on the subject, and gives a comparison with carbon ion therapy.

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Questions for Emmanuel Tsesmelis (CERN)

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Questions for Leandar Litov (Uni Sofia)

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Questions for Roberto Orecchia (IEO)

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Questions for Konrad Lehmann (GSI)

Questions for Andrea Mairani (HIT)

1.ANN will be an alternative to Monte Carlo Planning Systems?

ANSWER:

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Questions for Pawel Olko (IFJPAN)

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Questions for Angelica Facoetti (CNAO)

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Questions for Alessandra Lombardi (CERN)

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Questions for Ernesto De Matteis (INFN)

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Questions for Ariel Haziot (CERN)

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Questions for Aris Mamaras (CERN/AUTH)

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Questions for Amer Ajanovic (CERN/USA) Danis
Bradaric ,Naida Ustavdic , Medina Dugonjic
(UNSA)

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Questions for Elpida Theodoridou (DKFZ , Uni Malta) , Joao Seco (DKFZ , Uni Heidenberg)

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Questions for Laura Vallow

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Sturday 19th, Octomber 2024

Questions for Maria Rosaria Fiore (CNAO)

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Questions for Tasos Kyriazoglou (Attikon University Hospital)

1. E. IAKOVAKI: what is the prognosis in intraperitoneal sarcomas and what treatment do you suggest?

ANSWER:

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Questions for Christos Boskos (ST LUKE'S)

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Questions for Anna Makridou (THEAGENIO)

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Questions for Michael D.Story (Mayo Clinic)

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Questions for Arnold Pompos (UTS) , Joao Seco
(DKFZ)

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Questions for Lisa Licitra (CNAO, Uni Milan)

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Questions for Maria Vittoria Livraga (CNAO)

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Questions for Silvia Meneghello (CNAO)

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Questions for Katerina Zourou(Web2Learn),
Stefania Oikonomou (Web2Learn)

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Questions for Alkinoos Athanasiou (AUTH , ELEVIT)

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Questions for Menia Koykoygianni (NGO
KARKINAKI)

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Questions for Panagiotis Bamidis (AUTH /AHEPA
,ELEVIT)

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Questions for Sandro Rossi (CNAO)

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Questions for Piero Fossati (MedAustron)

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Questions for Carola Lutgendorf-Caucig
(MedAustron)

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Questions for Sabina Vennarini (CNAO)

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Questions for Alfredo Mirandola (CNAO)

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Questions for Nikos Foroglou (AUTH/AHEPA)

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Questions for Aikaterini Tzantzaroudi (Hippokartion
Hospital)

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Questions for Emmanouel Chatzipantelis
(AUTH/AHEPA)

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Questions for Evgenia Papakonstantinou
(Hippokration Hospital)

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Questions for Capizzello Antonio (AUTH/AHEPA),
Eftychia Tataridou (Theageneio Hospital)

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Questions for Barbara Rombi (APSS-TRENTO)

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Questions for George Giakoumetis (AUTH/AHEPA)

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Questions for Semi Harrabi (HIT)

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Monday 21st octomber,2024

Questions for Antonio Capizzello and Eytixia
Tataridou(AUTH/AHEPA)

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Questions for George Giakoumetis (AUTH/AHEPA)

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Questions fro Niklas Wahl (DKFZ)

1.Kayode A. DADA: Please can you repeat how to install matRad if one has matlab software already installed

ANSWER :

2.Thandar Aung: When might the next release with Helium update come out?

ANSWER :

3.Thandar Aung: Does matRad allow for LET optimization?

ANSWER:

4.Mariana Brás: I didn't fully understand the dij matrix. Is it the optimal dose matrix in each patient voxel, which then the software tries to come as close as possible by adjusting the beamlets, or is it already the dose in each voxel due to the beamlets calculated previously?

ANSWER:

5.Luca Garolfi: is there any way to change the dimension of the beam cross-section? hoddid you plot the proton beamlet?

ANSWER:

6.Mariana Brás: Yes, is it possible to optimize the dose in a target for transmission protons beams, for example?

ANSWER:

7.Thandar Aung: I don't know if I missed it but what is the difference between LEM4 effect and LEM4 RBExD?

ANSWER:

8.Shelly: If there is robustness, when we optimized?

ANSWER:

9.panagiotis koliokitsos: until when we can submit our matrad images to attain a school certificate?

ANSWER:

10.Luca Garolfi: Could you expalin in a simple way why some "spikes" occur in the function optimisation plot?

ANSWER:

11.Shelly: Does the Matrad provide the LET calculation or optimization for proton and carbon?

ANSWER:

12.Thandar Aung: Why do we have only one alpha and beta value for each organ if we can have the same organ at different depths of the beam where the values will be different?

ANSWER:

13.Shelly: One more quick question, do your team consider the ARC in proton ?

ANSWER:

14.Luca Garolfi: How do we get updatd about MatRad new releases and new features?

ANSWER:

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Questions for Athanasios Koutsostathis (NTUA)

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Questions for Niklas Wahl (DKFZ)

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Questions for Yiota Foka (GSI)

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Questions for Nermine Muradi (Uniiversity of Tetovo)

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Questions for Nicholas Sammut (Uni of Malta)