HITRI plus
Heavy Ion Therapy Research Integration

Particle Therapy Masterclass – tangible impacts

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101008548

Eramsus + exchanges

Learning never exhaust the mind.

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Particle Therapy Masterclass 2021

Albana Topi GSI :
North Macedonia
Kosovo
Albania

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Heavy Ion Therapy Masterclass School 17 -21 May 2021

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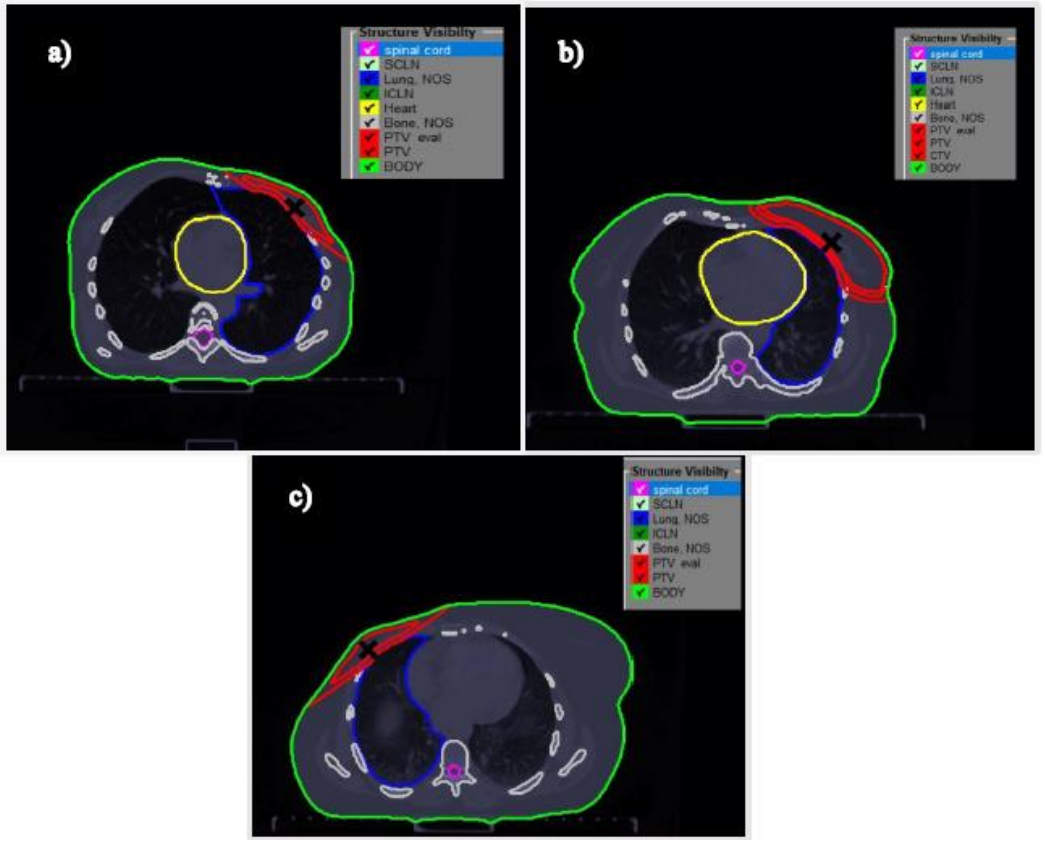
Master thesis:
Simulations of treatment planning of breast cancer and comparison with real cases



a) First case beam angles 131.3°, 131.3° and 308.4°, and third with three different beams coming in angles 131.3° , 308.4° dhe 355°.
b) 131.5°, 131.5° and 308.9°, and three beams 131.5°, 308.9° and 350°.
c) 229.1°, second plan with two beams in angles 53.5° and 229.1°, and third plan with three beams 10 °, 53.3° and 229.1°.

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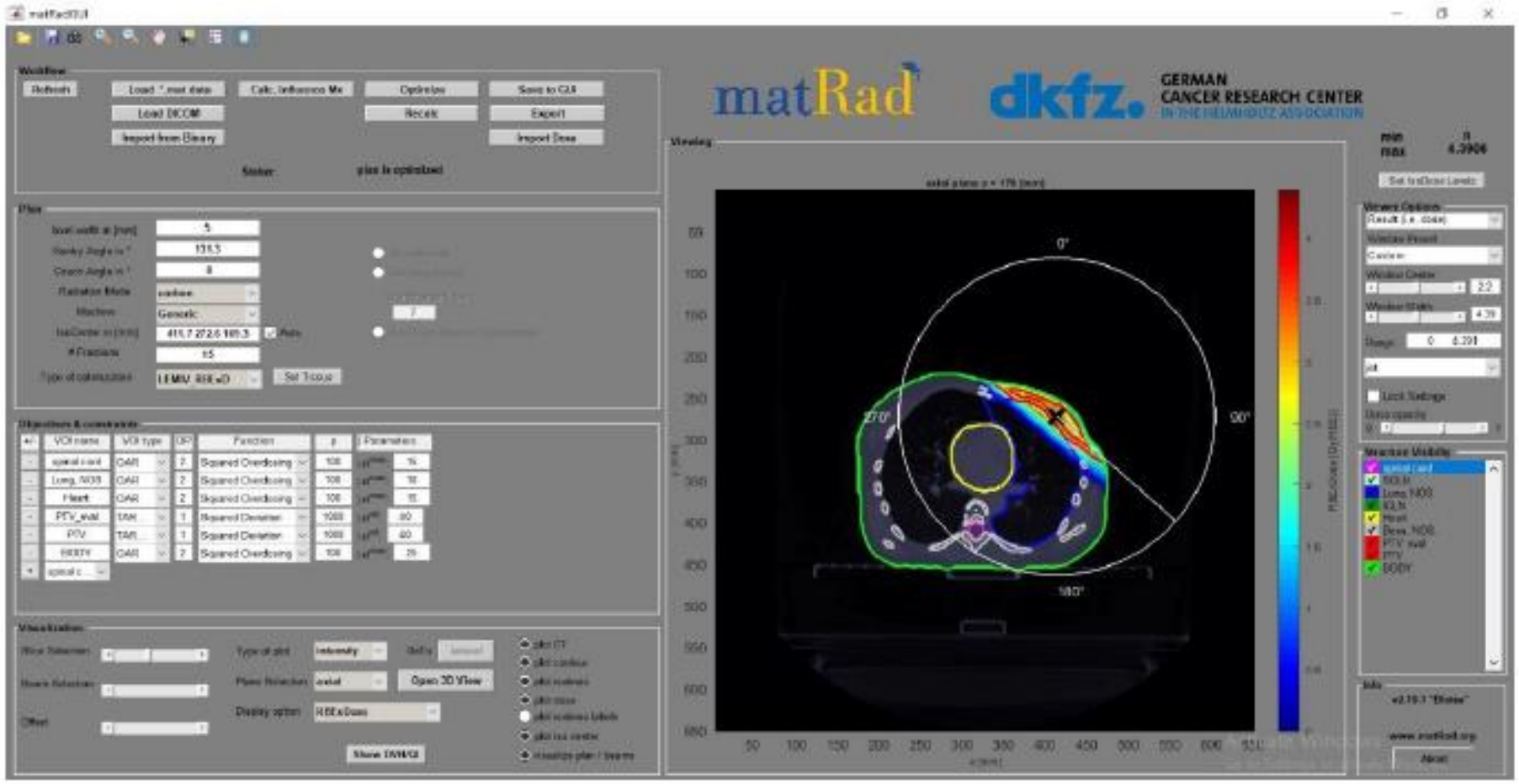

40 Gy in 15 fractions

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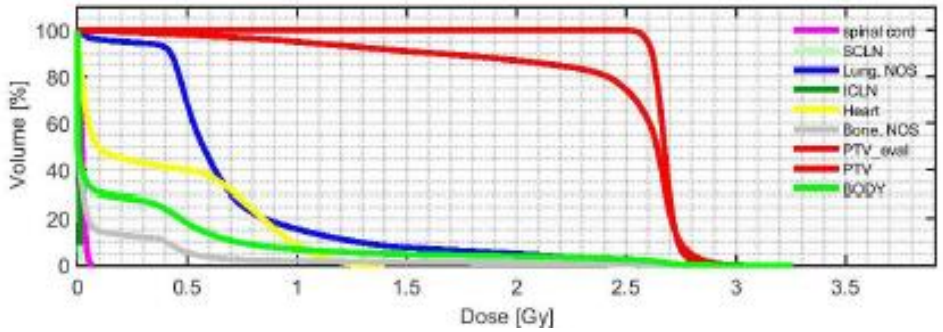
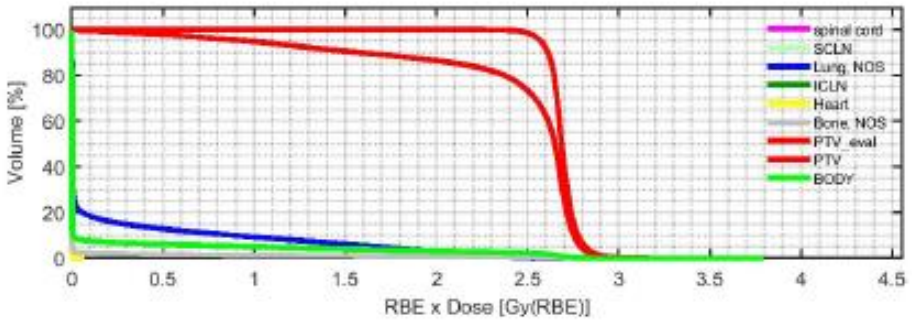
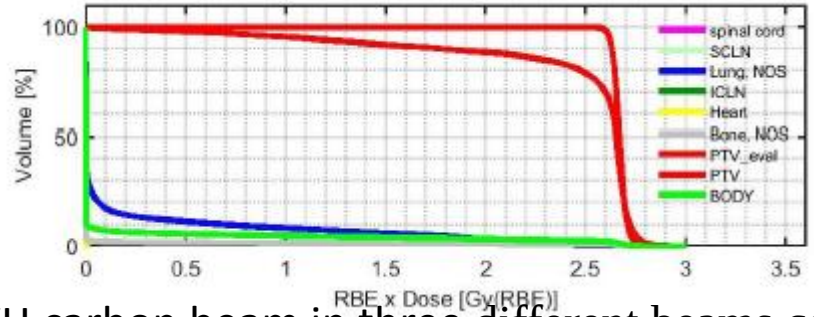


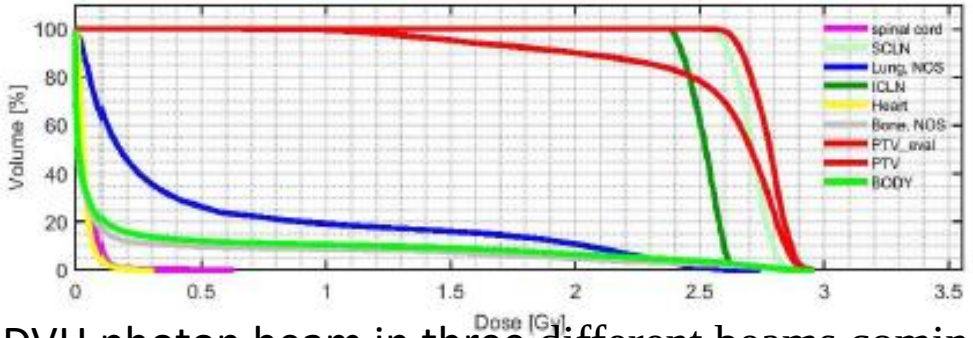
DVH photon beam in three different beams coming in angles 131.3° , 308.4° and 355°.



DVH proton beam in three different beams coming in angles 131.3° , 308.4° and 355°.



DVH carbon beam in three different beams coming in angles 131.3° , 308.4° and 355°.



DVH photon beam in three different beams coming in angles 131.3° , 308.4° dhe 355° in clinic

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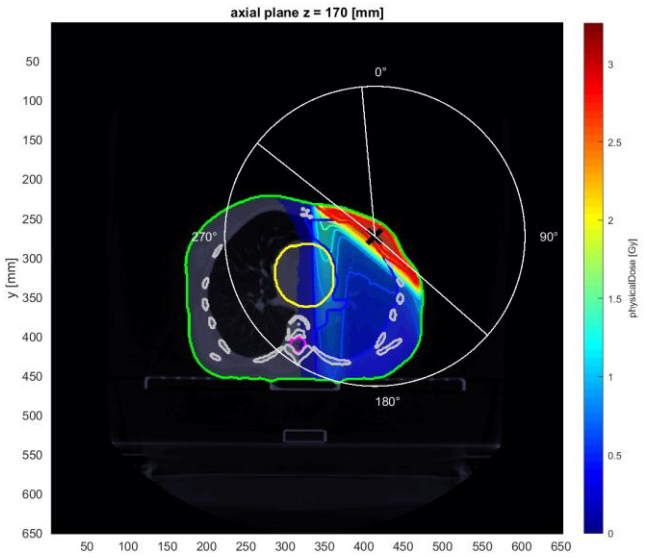

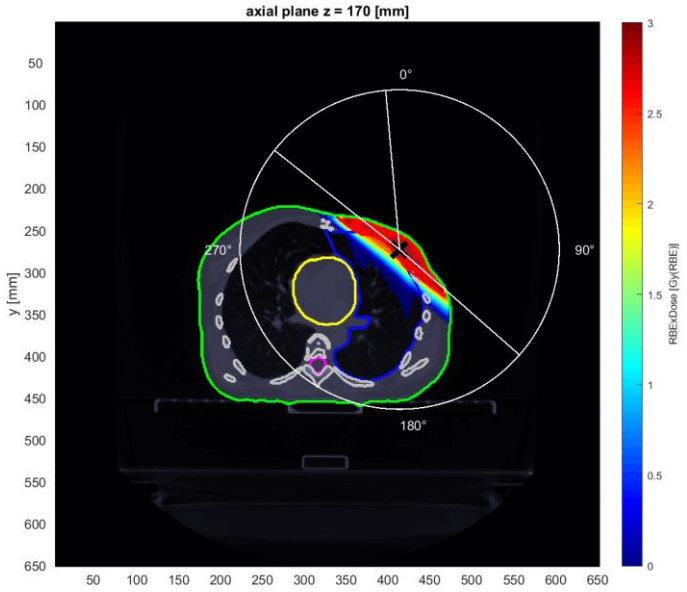

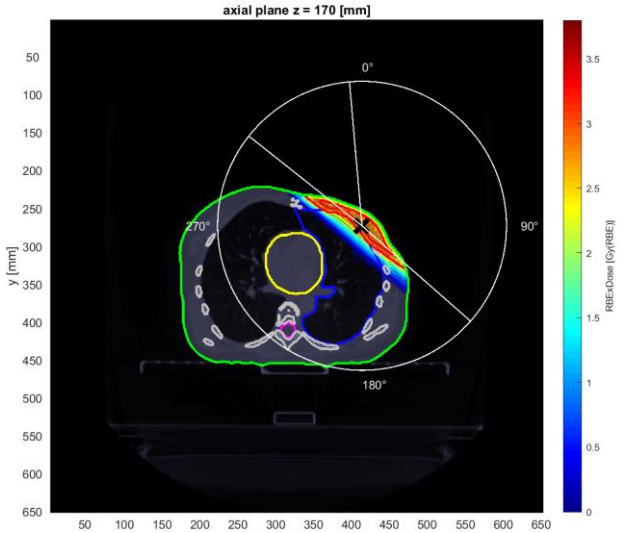

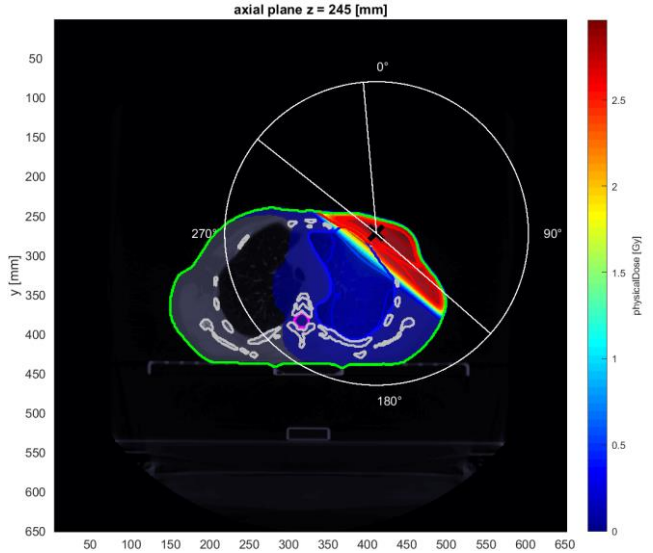

$$MDR = \frac{D_X^{VOI} - D_Y^{VOI}}{D_{fotone}^{VOI}}$$

MDR photons vs protons 73.4% for the lungs, 99.9% for the heart and 56% for the body
0.19% for PTV
MDR photons vs carbons: 71% for the lungs, 99% for the heart and 54 % for the body

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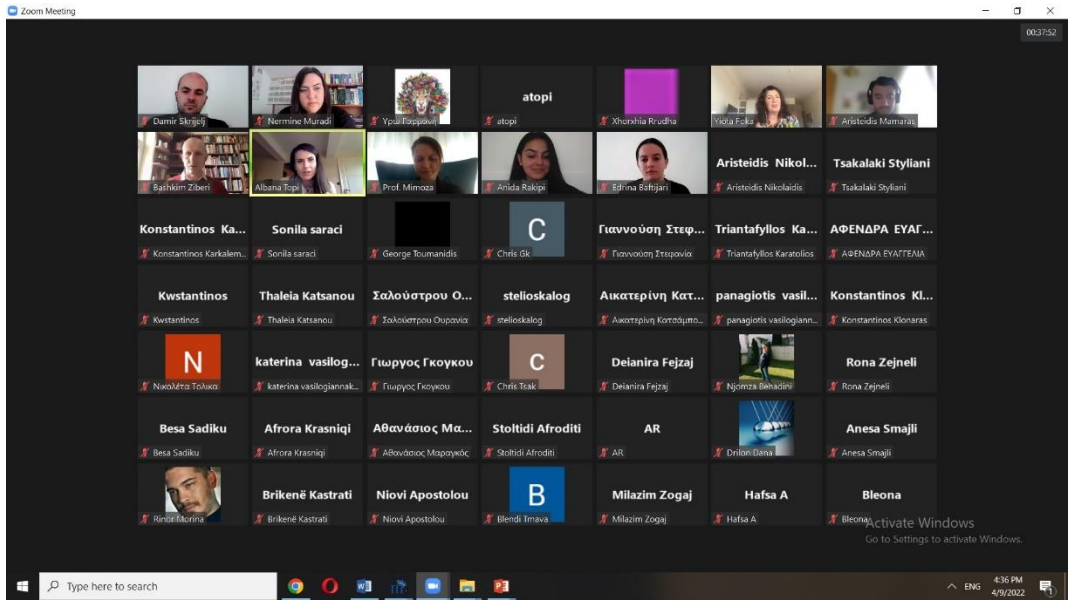
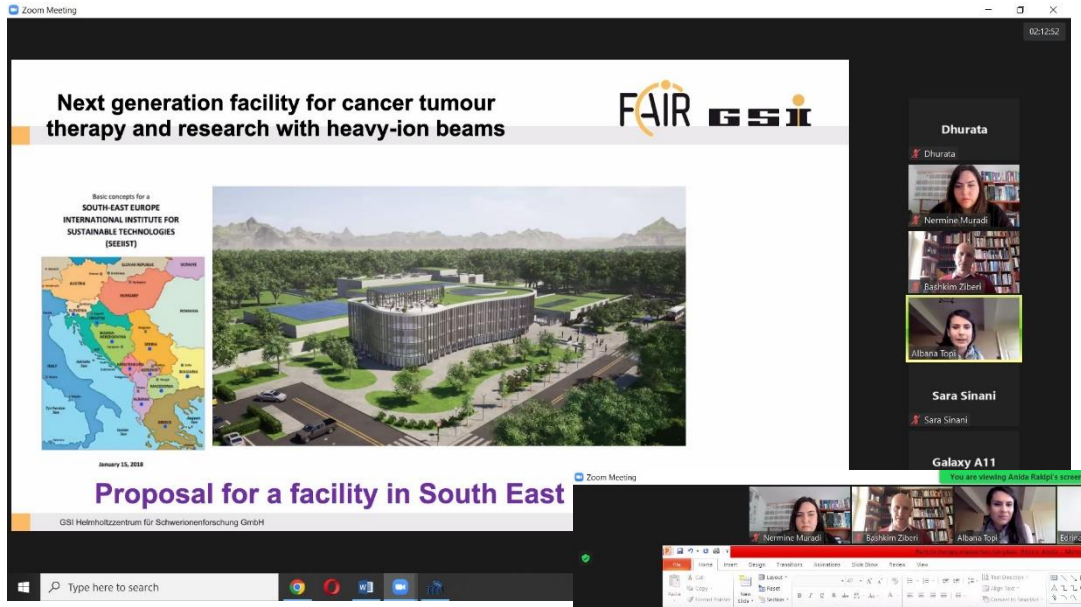
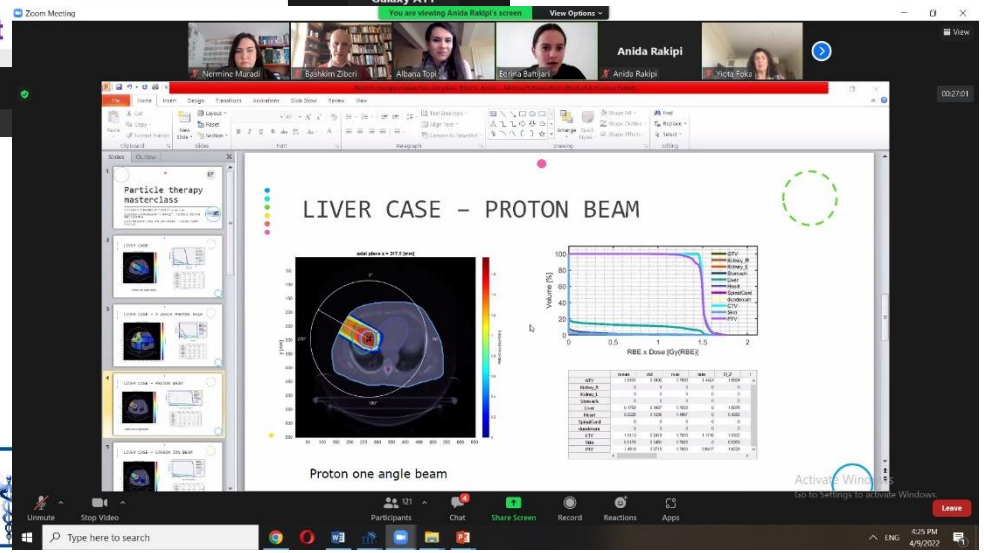
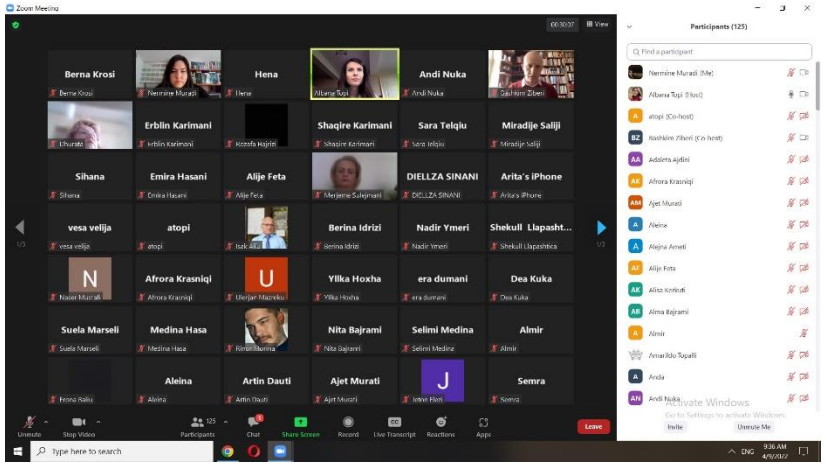
Particle Therapy Masterclass 2022
140 high school pupils - online









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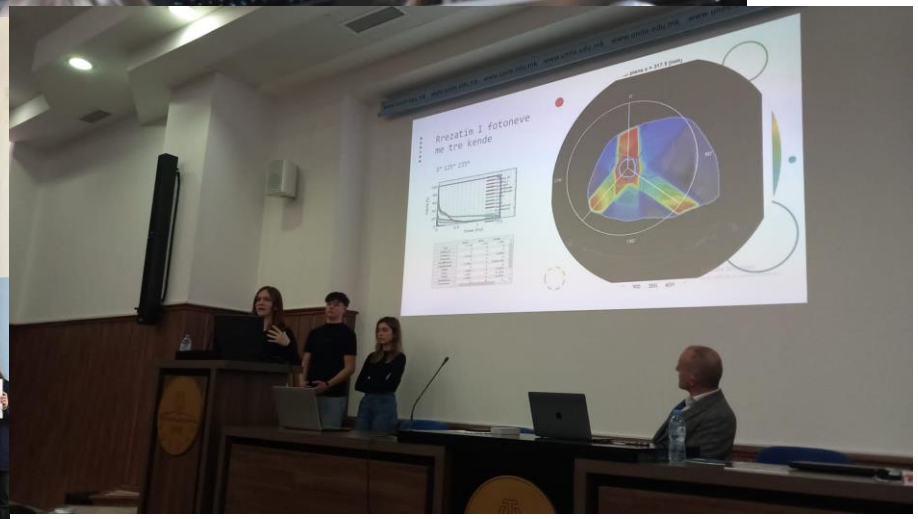
Particle Therapy Masterclass 2023
200 high schools students UT



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Particle Therapy Masterclass 2024
272 high school students Tetova

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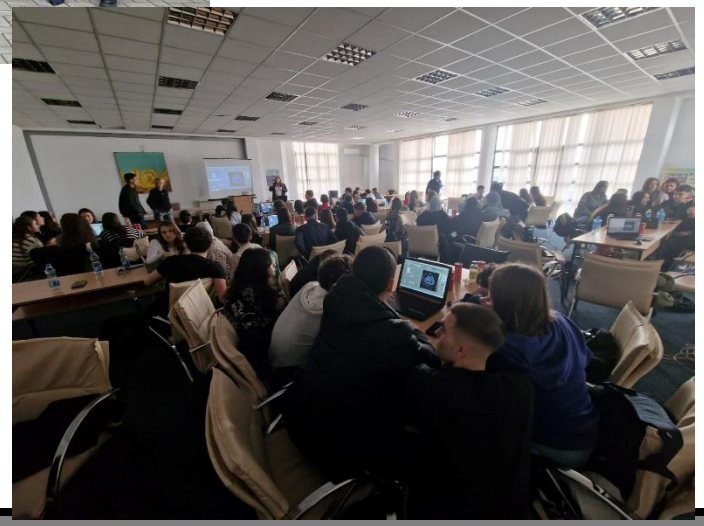
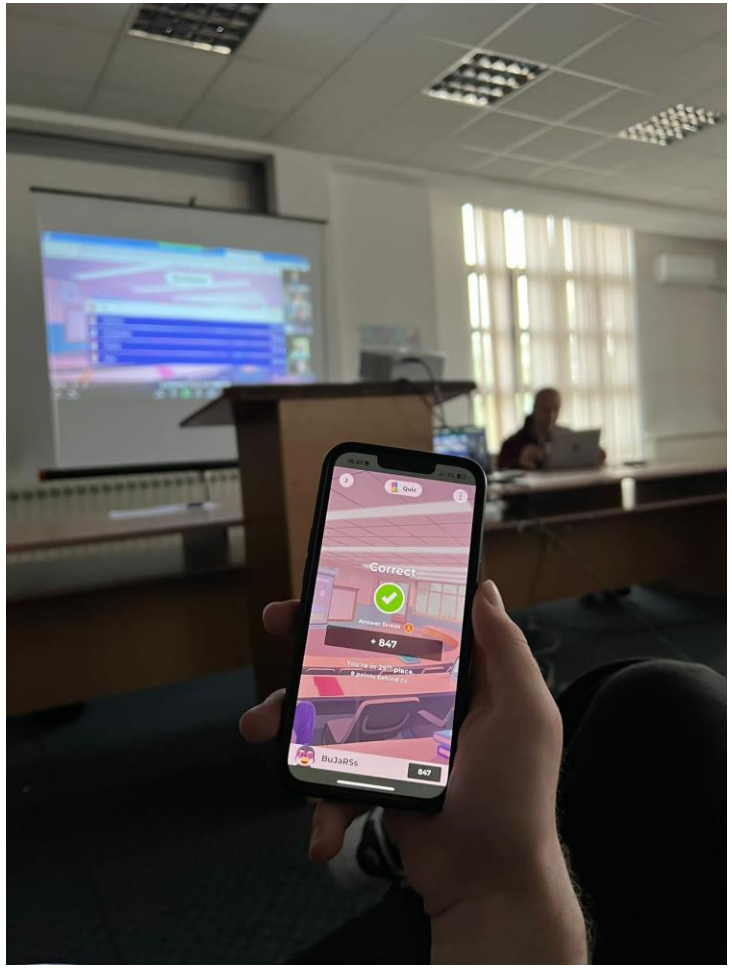
Particle Therapy Masterclass 2024
100 high school students Skopje





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Particle Therapy Masterclass 2024
272 Tetova, 100 high school students Skopje

-Train the tutors sessions

4 Bachelor students
4 Bachelor and Master thesis
- Many friendships, connection and sharing information from HitriSchools

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Breast month cancer awareness
Here’s to strong woman, may we know them, may we be them or may be raise them

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AIM: SURVIVAL AND QUALITY OF LIFE

Thank you

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