

GSI - SEMINAR

Im Theorieseminarraum, SB3 Raum 3.170a

Darmstadt, Planckstraße 1

Montag, den 04. Mai 2015, 15:00 Uhr

Dr. Wei Liu

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"Robust optimization and robustness quantification in intensity modulated proton therapy"

Intensity-Modulated Proton Therapy (IMPT) is highly sensitive to uncertainties in beam range, patient setup and organ motion. In the worst case and nominal scenarios, robustly optimized plans showed better target coverage, improved dose homogeneity, and lower or equivalent dose to organs at risk (OARs). Robust optimization provided significantly more robust dose distributions to targets and organs than conventional optimization in H&N using IMPT. Reduction of PTV and planning directly based on CTV provided better or equivalent OAR sparing. Also 4D robust optimization mitigated the influence of interplay effect than 3D robust optimization in lung cancer patients treated by IMPT.

Einladender: Prof. Dr. Gerhard Kraft

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