

+ MEDICAL PHYSICS SEMINAR SERIES



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Dosimetry of small static photon fields: Challenges and solutions

Intensity modulated radiotherapy, Stereotactic radiosurgery and stereotactic body radiotherapy routinely use radiation beams of small field sizes to treat small tumors. The delivery of such treatments are routinely performed using specialized dedicated machines such as CyberKnife, GammaKnife, Tomotherapy as well as accelerators equipped with high-resolution multileaf collimators. Experimentally determined and/or Monte Carlo calculated correction factors for recommended ionization chambers are given for reference dosimetry in non-standard machine specific reference (msr) fields. The CoP also provides data for correction factors for high-resolution detectors such as diodes, diamond detectors etc for the determination of field output factors. These data are based on a vetted survey of literature data combined with Monte Carlo calculations.

In this presentation I will provide a review of the recommendations given in TRS483 Code of Practice for reference dosimetry performed in machine-specific-reference fields and relative dosimetry performed in static small fields in high energy photon beams.

Monday, April 18, 2021

4:00PM (CT) via Webex

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