



Second Workshop Radiotherapy & Mathematics

Title: The potential of deterministic transport methods for treatment planning

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Summary: Mathematical methods play an increasing role in medicine, especially in radiation therapy. While until recently, treatment planning was done by an experienced physician “by hand”, computer-aided treatment planning systems based on optimization algorithms currently enter into clinical practice. Treatment planning has been formulated as an optimization problem by Webb in 1989 and has been developed further since then. In this talk, we discuss the potential of a new method which describes the dose deposition by a Boltzmann transport or related model.