عنوان مقاله:

An Optimal Fluence Map in IMRT with Trapezoidal Fuzzy Target Dose for Head-and-neck Cancer

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خلاصه مقاله:

According to the clinical practice, in the Intensity modulated radiation therapy (IMRT) procedure some of the parameters are fuzzy. In this paper, the optimal treatment has been shown as a solution of an optimization problem with quadratic objective function, where the prescribed target dose is a trapezoidal fuzzy number. We in [5] solved this problem with prescribed target dose in the form of triangular fuzzy number. Since the solution set is non-convex, the optimal solution has been obtained by relaxation method. Numerical simulationis given in head-and-neck cancer.

کلمات کلیدی:

Intensity modulated radiation therapy (IMRT), trapezoidal fuzzy number, optimization, Computational Environment for Radiotherapy Research (CERR)

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