

Title (en)

METHOD AND APPARATUS FOR IMAGE-GUIDED RADIOTHERAPY

Title (de)

VERFAHREN UND GERÄT FÜR DIE BILDGEFÜHRTE STRAHLENTHERAPIE

Title (fr)

PROCEDE ET APPAREIL DE RADIOTHERAPIE ASSISTEE PAR IMAGERIE MEDICALE

Publication

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Application

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Priority

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Abstract (en)

[origin: WO0220084A2] An apparatus for delivering therapeutic radiation to a treatment region in a body in accordance with a prescribed dose distribution includes a source of therapeutic radiation, and an image-guided surgery system. The image-guided surgery system includes a position tracking system for tracking a position of the source with respect to the treatment region, and an imaging system for generating visual images in response to input data. A method is disclosed for delivering a prescribed dose of therapeutic radiation to a treatment region having an arbitrary geometry. A visual image representing a prescribed dose distribution within the treatment region is generated. Therapeutic radiation is delivered to the treatment region, and a cumulative dose of the radiation actually delivered to desired points within the treatment region is calculated. A visual image representing the delivered cumulative dose of radiation is generated and displayed. The amount of therapeutic radiation delivered to the treatment region is adjusted so that the delivered dose substantially matches the prescribed dose distribution at any desired point within the treatment region.

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