

Title (en)

REAL-TIME ANATOMIC POSITION MONITORING FOR RADIOTHERAPY TREATMENT

Title (de)

ANATOMISCHE ECHTZEIT-POSITIONSÜBERWACHUNG FÜR STRAHLENTHERAPIE

Title (fr)

SURVEILLANCE DE POSITION ANATOMIQUE EN TEMPS RÉEL POUR TRAITEMENT DE RADIOTHÉRAPIE

Publication

**EP 4329875 A1 20240306 (EN)**

Application

**EP 22796941 A 20220418**

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Abstract (en)

[origin: WO2022232749A1] Systems and methods are disclosed for monitoring anatomic position of a human subject for a radiotherapy treatment session, and optionally modifying a radiotherapy treatment based on anatomic position changes. Example operations for movement monitoring and therapy control include: obtaining 3D image data for a subject, which provides a reference volume and at least one defined region of interest; obtaining real-time 2D image data corresponding to the subject, captured during the radiotherapy treatment session; extracting features from the 2D image data; producing a relative motion estimation of a region of interest with a machine learning regression model, the model trained to estimate a spatial transformation from the 2D image data based on training from the reference volume; and controlling a radiotherapy beam of a radiotherapy machine used in the radiotherapy session, based on the relative motion estimation.

IPC 8 full level

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