



Second Workshop Radiotherapy & Mathematics

Title: Treatment response assessment in radiotherapy based on proton diffusion measured by magnetic resonance imaging

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Summary: Studies of diffusion in MRI were recently proposed as a method for assessing radiotherapy treatment in the initial stage of the treatment. These methods are based on the changes in the internal structure introduced by ionizing radiation in the tissue and the changes in the permeability of the membrane due to treatment effects. These changes in proton diffusion can be measured by in vivo studies in MRI with a non-invasive method.