

MEVION

Mevion Medical Systems is a leading provider of proton therapy systems for use in radiation treatment for cancer patients.

“The low frequency solvers from Dassault Systèmes are critical to our design process.”

– Yan Zhang, Accelerator Engineer, Mevion

Challenge

Mevion needed to enhance beam quality, increase stability and uptime to reduce system complexity, increase reliability, while lowering capital and operating costs.

Solution

Mevion chose Dassault Systèmes’ Opera for finite element analysis as a powerful standalone low frequency electromagnetic (EM), electromechanical, and multiphysics solver to simulate an advanced interaction of various EM fields.

Benefits

Proton therapy destroys tumors with a precise, targeted dose of radiation that minimizes radiation exposure to nearby healthy tissue. Opera’s low frequency EM solver provides a simulation tool to optimize this effect and further enhance accuracy. With enhanced beam quality and accuracy, protons are charged to reach the exact depth of the tumor location.