1967 - 2017 50 YEARS OF BEAM exploring the nuclear frontier

CYCLOTRON INSTITUTE
TEXAS A&M UNIVERSITY

Advancing Electron Beam Radiation Therapy through Physics Research

Abstract: Electron beam radiation therapy will be introduced by comparing it to other external beam radiation therapy modalities. The presentation will focus on the role physics, particularly multiple Coulomb scattering, has played in advancing electron beam treatment planning and delivery technology, concentrating on a sampling of the author's research. This will include:

(1) accelerating therapeutic electron beams

(2) designing beam line components that spread, flatten, collimate, and monitor the beams

(3) accurately calculating radiation dose in patients

(4) planning and delivering highly conformal radiation treatments using range and intensity modulation.

Physics research has generated quality technology, making the electron beam highly useful for radiation therapy of many cancers lying within 6 cm of the patient surface.

TEXAS A&M UNIVERSITY

April 4, 2017

3:30pm

50 Years of beam Seminar Series

Kenneth R. Hogstrom, PhD

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Senior Medical Physics Advisor, Mary Bird Perkins Cancer Center
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Cyclotron Institute

Room 228

Refreshments will be served at 3:15pm