# GSI – **BIOPHYSICS SEMINAR**


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## Thursday, March 14th, 2019 at 2 p.m.

**Lecture hall, Theory SB3 3.170a**

Planckstraße 1, 64291 Darmstadt

***"Using Genetically Engineered Mouse Models of Cancer to Study Radiation Biology"***


A number of pre-clinical model systems are available to study radiation biology ranging from in vitro 2D or 3D culture systems, to transplanted tumor models in immunodeficient or immunocompetent mice, to primary tumors in genetically engineered mice. While each model system has strengths and weaknesses, genetically engineered mouse models provide an opportunity to study radiation biology in the context of a tumor that co-evolves with a native immune system. In this lecture, I will present recent results using genetically engineered mouse models to study mechanisms of radiation-induced cancer, the role of the immune system in regulating the response and resistance of cancer to radiation therapy, and as a platform for investigating the RBE of carbon ion radiotherapy and novel radiosensitizers.


**Hosted by Prof. Dr. Marco Durante**
**GSI Helmholtzzentrum für Schwerionenforschung GmbH**