



GSI Helmholtzzentrum für
Schwerionenforschung GmbH

Planckstraße 1
64291 Darmstadt
Germany

www.gsi.de

GSI · Planckstraße 1 · 64291 Darmstadt · Germany

Dr. Miriam Brosi
MAX IV, Lund University
Lund
Sweden

Biophysics

Prof. Marco Durante
Medical Physics

Prof. Christian Graeff
Group Leader

Phone +49 6159 71-1848

c.graeff@gsi.de

30 Jan 2024

Letter of intent to collaborate on “Beam Dynamics and Collective Effects in the Generation and Propagation of Structured Beams for Advanced Accelerator-based Radiotherapy”

Dear Dr. Brosi, dear German Research Foundation grant evaluation team,

With this letter I would like to express my intent to collaborate with Dr. Brosi on the Emmy-Noether project “Beam Dynamics and Collective Effects in the Generation and Propagation of Structured Beams for Advanced Accelerator-based Radiotherapy”. FLASH is one of the hottest topics in radiotherapy research of recent years with many efforts dedicated to advancing our understanding on the underlying mechanisms that dictate radiation therapy effectiveness. Synchrotrons in particular are an important source for FLASH radiation, which needs high dose and high dose rate. Yet, current sources for FLASH beams, such as synchrotron radiation sources, provide high dose rate beams in an experimental setting that lacks the standardization and quality demanded for treatment applications.

Dr. Brosi strives toward improving the beam quality achievable at synchrotron FLASH radiation sources, and I am happy to collaborate with her on the clinical applications and translation of her research.

Kind regards

Prof. Christian Graeff

Geschäftsführung:
Professor Dr. Paolo Giubellino
Jörg Blaurock

Vorsitzender des Aufsichtsrates:
Ministerialdirigent Dr. Volkmar Dietz

Sitz: Darmstadt
Amtsgericht Darmstadt HRB 1528

UST-IdNr.: DE 111 671 917
Landesbank Hessen/Thüringen

IBAN DE56 5005 0000 5001 8650 04
BIC HELADEF3333