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## PRISMA+ Colloquium

June 7, 2023 at 1 p.m. Lorentz-Raum, 05-127, Staudingerweg 7

Dr. Alexander Gerbershagen University of Groningen, Netherlands

## Hadron therapy and the new particle therapy research center (PARTREC)

The presentation covers the aspects of the use the accelerators for the hadron therapy. It includes the summary of the advantages of hadron use for radiation treatment of cancer, the technological solutions used for the beam acceleration, dose delivery and application, and an overview over the types of commercially available systems. Following that, the presentation concludes by describing the newly established the PARticle Therapy REsearch Center (PARTREC) in Groningen. Using the superconducting cyclotron AGOR and being embedded within the University Medical Center Groningen, providing proton beams of up to 190 MeV and ion beams (up to Pb) with energies up to 90 MeV/nucleon for pre-clinical research in medical physics and radiobiology.

