



# ACCELERATOR SEMINAR

**Andreas Peters**

Heidelberger Ionenstrahl-Therapiezentrum (HIT)

**Thursday, 3rd December 2020 at 4 pm**

**Seminarraum Theorie & via Zoom**

**(ID: 922 0810 9528/ PW: 288786)**

## **Review of spill structure enhancements at HIT and other ion therapy facilities**

Ion beam therapy facilities are mostly based on synchrotrons and different slow extraction methods are used to produce a "DC-like" beam feeding the raster scan systems to apply the pre-planned dose distributions to the patients. At HIT the RF knockout method developed by HIMAC in Japan was installed and continuously enhanced since the patient treatment started in 2009. Several steps like the "Dynamic Intensity Control" based on feedback mechanism will be reviewed. In addition, the developments at other ion beam facilities - CNAO in Italy, MIT in Marburg and MedAustron in Austria - will be described, partly based on the Betatron method proposed in the PIMMS study twenty years ago. The experiences after more than ten years of operation as well as the next development steps planned within the EU funded IFAST initiative will be reported.



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Coordinator: Anja Seibel, Janet Schmidt  
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