

**FAKULTÄT für PHYSIK  
LUDWIG-MAXIMILIANS-UNIVERSITÄT  
MÜNCHEN/GARCHING**

**PHYSIK-DEPARTMENT  
TECHNISCHE UNIVERSITÄT MÜNCHEN  
MÜNCHEN/GARCHING**

## **MLL-KOLLOQUIUM**

**Donnerstag, 24.05.2018, 16<sup>15</sup> Uhr**

Hörsaal der LMU in Garching, Am Coulombwall 1  
Treffen zum gemeinsamen Kaffee 16 Uhr

**Prof. Guido Baroni**

**(Politecnico di Milano/ Italy)**

### **Clinical deployment of technical solutions towards clip-free ocular proton therapy**

External beam protontherapy represents an important therapeutic strategy for the treatment of intraocular tumors. Accurate target localization and efficient compensation of involuntary eye movements are crucial to avoid deviations in dose distribution with respect to the treatment plan. In the frame of the ocular treatments recently started at CNAO and of a collaborative effort between Politecnico di Milano and the Paul-Scherrer-Institut (PSI, Switzerland), this talk will focus on the implementation, commissioning and clinical transfer an eye tracking system (ETS) based on non-invasive infrared video imaging. The clinical implementation at CNAO will be described including a robotic platform guided by IR tracking for the accurate positioning of the device in the treatment room according to indication coming from the treatment plan. Furthermore, the ongoing activities with PSI towards a clipless, MRI-based approach to ocular protontherapy will be detailed and discussed.

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