

# GSI – SEMINAR

Im Theorieseminarraum, SB3 Raum 3.170a

Darmstadt, Planckstraße 1

Mittwoch, den 9. November 2016, 14:00 Uhr

**Prof. Dr. Wolfgang-Ulrich Müller**  
Universitätsklinikum Essen

## ***"The Problem of Equivalent Dose Estimations for Radon exposures"***

Radon exposure is measured in WLM (working level month) for workers or in  $\text{Bq h m}^{-3}$  for the general public. The most important dose unit in the "radiation protection world", however, is the mSv (millisievert) effective dose. There is no easy way to convert either WLM or  $\text{Bq h m}^{-3}$  to mSv. Up to now, the conversion factor that was used leads to about 1.1 mSv effective dose due to radon for the general public. ICRP (the International Commission on Radiation Protection) revisited the problem of the conversion factor and came to a surprising new conclusion. Using a so-called "epidemiological" and a "dosimetric" approach the conversion factor that was about 1 WLM = 5 mSv previously, changed to about 1 WLM = 12 mSv. This means: the effective dose of radon is now estimated to be more than twice as high as previously thought, although neither the exposure nor the absorbed dose (in mGy) has changed.

**Einladender: Dr. Michael Scholz**

**GSI Helmholtzzentrum für Schwerionenforschung GmbH**

