

# GeMSE: A Gamma Spectroscopy Facility for Meteorite and Material Screening



D. Ramírez García<sup>1,2</sup>, D. Baur<sup>1</sup>, J. Grigat<sup>1</sup>, B.A. Hofmann<sup>2,3</sup>, S. Lindemann<sup>1</sup>,  
D. Masson<sup>1</sup>, M. Schumann<sup>1</sup> and F. Toschi<sup>1</sup>

<sup>1</sup> Physikalisches Institut, Universität Freiburg, 79104 Freiburg, Germany    <sup>3</sup> Natural History Museum Bern, 3005 Bern, Switzerland

<sup>2</sup> Institute of Geological Sciences, Universität Bern, 3012 Bern, Switzerland    <sup>4</sup> Department of Physics, University of Zürich, 8057 Zürich, Switzerland

**Poster 76**

- **Low-background HPGe detector**
  - standard coaxial, p-type, 2.0 kg
  - moderate rock overburden of **620 m.w.e.**
  - continuous remote operation
- Material and Meteorite screening campaigns
- Detailed GEANT4 model
  - complex geometries using CADMesh
- Background well described by multi-component fit
  - muon-dominated
  - **(164 ± 2) counts/day** (100–2700 keV)

