

# Irradiation Tests for the LFHICAL

Friederike Bock,  
Oskar Hartbrich,  
**Norbert Novitzky**

ORNL is managed by UT-Battelle LLC for the US Department of Energy

# Irradiation Tests for the LFHCAL

- Readout boards and ASICs
  - behind endcap,  $\leq 10^9$  neq/y
  - ASICs rad. hard by design
  - Needs first full prototype
- LFHCAL scintillator assemblies
  - Plastic scintillator (CMS tested)
  - Reflective wrap (CMS tested)
  - Kapton foil + glue
  - LEDs for calibration
  - No complications expected
- SiPM sensors
  - Do not expect complications, but need samples of final SiPMs irradiated to various levels up to expected max
  - Assume this will happen in coordination with all other SiPM based subsystems

