

## Photon science detector development at PSI

*giovedì 22 giugno 2023 12:00 (30 minuti)*

Single photon counting detectors developed at PSI, like MYTHEN and EIGER, are the detector of choice of many imaging and diffraction experiments at synchrotrons and the JUNGFRÄU charge integrating detector is widely used at Free Electron Lasers thanks to its reliability and large dynamic range.

In this presentation we will discuss the new developments carried out at PSI to improve the performance for next generation light sources.

Our R&D efforts focus mainly on single photon counters with higher count rate capability, charge integrating detectors with higher frame rates and optimized sensors for the whole energy spectrum (200 eV to 80 keV).

### Summary

**Autori principali:** MOZZANICA, Aldo (Paul Scherrer Institut); BERGAMASCHI, Anna (Paul Scherrer Institut); SCHMITT, Bernd (Paul Scherrer Institut); MEZZA, Davide (Paul Scherrer Institut); GREIFFENBERG, Dominic (Paul Scherrer Institut); BARUFFALDI, Filippo (PSI); ZHANG, Jianguo (Paul Scherrer Institut); HEYMES, Julian Brice Dominique (PSI); FRÖJDH, Lars Erik (PSI); CARULLA ARESTE, Maria del mar (Paul Scherrer Institut); DINAPOLI, Roberto (Paul Scherrer Institut); HINGER, Viktoria (Paul Scherrer Institute); XIE, Xiangyu (Paul Scherrer Institut); MOUSTAKAS, Konstantinos (Paul Scherrer Institut)

**Relatore:** MOZZANICA, Aldo (Paul Scherrer Institut)

**Classifica Sessioni:** X-ray detectors