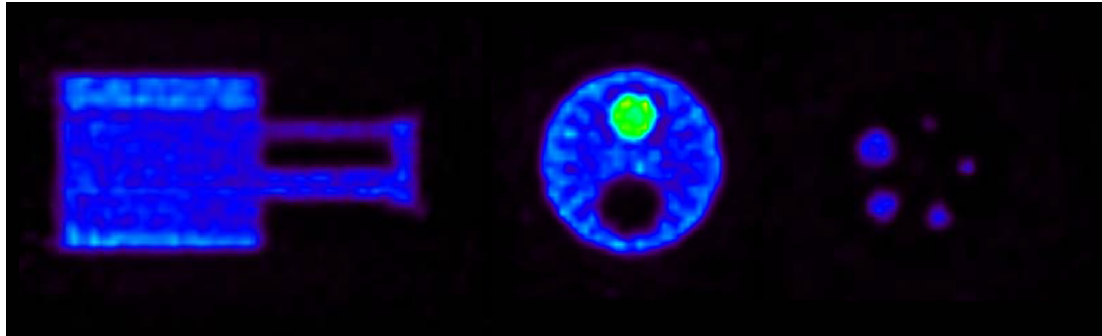




AX-PET - A Demonstrator for an Axial PET Camera with WLS Strips and G-APD Readout



The image shows the reconstruction of different sections of a NEMA-IQ-Mouse-Phantom (see PetPhantoms). Data taken in measurement campaign during July 2011 at AAA (Saint Genis Pouilly, France).

The AX-PET collaboration: Bari, Cagliari, CERN, Michigan, Ohio, Oslo, Tampere, Valencia, Zurich



What's special about AX-PET ?

AX-PET is a novel PET detector based on long axially arranged crystals and orthogonal Wavelength shifter (WLS) strips, both individually readout by Geiger-mode Avalanche Photo Diodes (G-APD, also called SiPM). Its design was conceived to reduce the parallax error and simultaneously improve spatial resolution and sensitivity. A 'Demonstrator' has been built which consists of 2 detector modules (in total 96 LYSO crystals and 312 WLS strips). After extensive tests in the lab with Na-22 point sources, the Demonstrator was characterized with phantoms at the small animal PET lab at ETH Zurich ([link](#)) and the company AAA in France. Recently, in spring 2012, we successfully demonstrated imaging with F-18 and FDG of mice and rats.

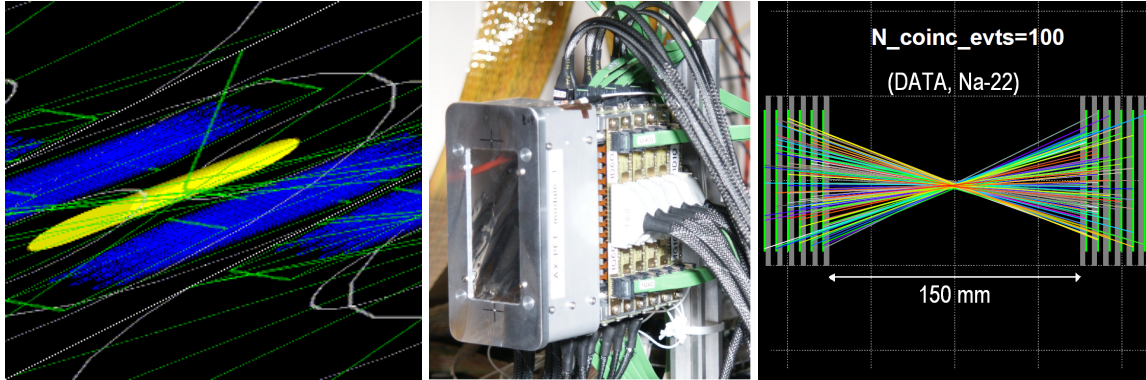
For more information about the AX-PET project, please contact Christian Joram (remove SPAMNOT from address)

- AX-PET meetings - Link to the Indico server (restricted access)
- CrystalsDetectors - Crystals, WLS strips and Photodetectors (incl. "DSiPM")
- ElectronicsDAQ - Readout electronics, Trigger and DAQ
- PetPhantoms - Drawnigs and photos of used phantoms
- PetAnalysis - Description of analysis tools and codes (restricted access)
- SoftwareTools - Simulation and Reconstruction (restricted access)
- PetDoc - A selection of documents on the AX-PET project
- PetConf - Conference contributions and upcoming conferences
- ProjPlan - Project Planning
- PetCampaigns - Measurement campaigns with the AX-PET demonstrator (restricted access)
- PetColl - AX-PET collaboration (password protected)

- PetPics - A selection of pictures of the tests at ETH

AX-PET email lists:

- all members: [mailto:axialpet@cernNOSPAMPLEASE.ch](mailto:axialpet@cern.ch) (remove SPAMNOT)
- collaboration board members: [mailto:axialpet-cb@cernNOSPAMPLEASE.ch](mailto:axialpet-cb@cern.ch) (remove SPAMNOT)



-- ChristianJoram - 22-Nov-2011

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