

IMSS Instrument R&D team

Shunji Kishimoto
IMSS, KEK

IMSS Instrument R&D team has just started from this May. Our team is trying to develop new detector system for material physics and biology. Why was the team founded in IMSS this moment? As the background, there was a great progress of Data Acquisition System for some large-scale detectors installed in J-PARC MLF, by co-operation with IPNS Electronics System (E-sys) group. From FY2009, PF also started some detector developments using fast signal processing with the E-sys group. We now intend to continue and encourage the projects with advanced electronic technique in IMSS.

Our poster will present some leading R&D projects at the initial stage:
in Photon Factory:

- # Ultra-fast signal processing system for Si-APD array X-ray detectors.
- # Auger-electron detector system for the depth-resolved X-ray magnetic circular dichroism (XMCD).

in J-PARC MLF (Neutron and Muon):

- # The NEXT Position-Sensitive Detector project (replace of He-3 PSD)
 - # MPPC (Multi-Pixel Photon Counter) array detector for μ -Spin Relaxation.
- and so on.