

Beam Diagnostics Collaboration Meeting

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Australian Synchrotron



Book of Abstracts

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CERN collaboration projects

Corresponding Author: hermann.schmickler@cern.ch

Summary:

Potential Collaborations:

- New LHC B/B BPM acquisition system : 4 GS/s sampling for bunch signal integration; RF front-end, timing
- High bandwidth/sampling rate digitisers with 10GHz bandwidth, 20GSa/s, digital signal processing and data reduction in FPGA, large buffer memory and linux based platform. The main aim is HeadTail monitoring or longitudinal tomography in LHC : We proposed a partnership with Itech on the subject with one of the new Marie curie network that was submitted by Carsten in January- The network is called O-RTI)
- Quadrupolar pick-up measurement (Marek is already following this with GSI, but there is at the moment an increasing demand to provide such device in PS-SPS and LHC, but I do not think that we have a formal collaboration on the subject)
- X-ray Synchrotron radiation imaging technique in the framework of HL-LHC or FCC with possibly synergy with the light source community.
- digital cameras
- radiation hard cameras vidicon replacement
- Gas jet wire scanner/Gas sheet fluorescence monitor
- E-lens
- fibre BLMS for CLIC & FCC

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Specific requirements and development program on beam instrumentation for heavy ion accelerator facility at ANU

Corresponding Author: nikolai.lobanov@anu.edu.au

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Test Beam and Detector Projects at ASLS

Corresponding Author: mark.boland@synchrotron.org.au

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LANL collaboration projects

Corresponding Author: jsedillo@lanl.gov

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Design of digital BPM electronics for HEPS at IHEP

Corresponding Author: yuejh@ihep.ac.cn

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ESS Diagnostics

Corresponding Author: andreas.jansson@esss.se

7

MEIC Design

Corresponding Author: jordan@jlab.org

8

Elettra beam diagnostics collaboration

Corresponding Author: mario.ferianis@elettra.eu

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Diagnostics for future accelerators

Corresponding Author: kay.wittenburg@desy.de

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KEK J-PARC Halo Monitor

Corresponding Author: toshiyuki.mitsubishi@kek.jp