

Fifth Barcelona Techno Week

Course on semiconductor radiation detectors

Institute of Cosmos Sciences, Barcelona
29 June - 3 July 2020
indico.icc.ub.edu/e/TW5

Program overview

Introductory physics concepts

- Particle detectors for High Energy Physics
- Interaction of particles with matter
- Signal Formation in semiconductor detectors

Introductory electronics concepts

- CMOS technology
- Radiation effects in electronics
- Pulse processing electronics
- Readout Electronics

X-ray and charged particle detectors

- Overview of hybrid pixel detectors
- Hybrid pixel detector for spectroscopy X-ray imaging
- Monolithic Active Pixel detectors

Solid state photodetectors

- CMOS Image & Vision Sensors for 2-D and 3-D
- SPAD imagers and a/d-SiPMs
- Photosensors in fast timing scintillation detectors.
- Silicon photonics for biomedical applications
- Medical imaging applications
- Advances in single photon detectors
- Front End and Readout electronics using photodetectors

Industrial presentations and Poster sessions

Lecturers

R. Ballabriga - CERN
M. Campbell - CERN
R. Carmona - IMSE-CNM
M. Carminati (Politecnico di Milano)
E. Charbon - EPFL
F. Faccio - CERN
D. Gascón - ICCUB/IEEC
A. González - I3M-UPV
E. Heijne - CERN & IEAP
X. Llopart - CERN
A. Rivetti - INFN Torino
Á. Rodriguez - IMSE-CNM
S. Royo - Beamagine
F. Salvat - CERN
D. Schaart - TU Delft
F. Serra-Graells - IMB-CNM & UAB
W. Snoeys - CERN
R. Turchetta - IMASENIC

Organizing committee

R. Ballabriga (CERN)
D. Gascon (ICCUB-IEEC)
S. Gomez (ICCUB-IEEC)
E. Pallarés (ICCUB)
M. Martín (ICCUB)

Early registration until May 31th

Late registration until June 29th

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Initiative:



Institut de Ciències del Cosmos
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