SiC Detector

Xin Shi

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Introduction

- Start our bi-weekly meeting for better communication
- Advancing the R&D for SiC detector
- Focusing on the key scientific questions
- Build a strong RD50 SiC group from China

- Next meeting ~June: date to be announced

39th RD50 Workshop, CERN, Geneva, Switzerland

http://rd50.web.cern.ch

RD50 Organizational Structure

RD50

CERN

Co-Spokespersons

Gianluigi Casse and ***Michael Moll***

(Liverpool University) (CERN PH-DT)

Defect / Material Characterization	Detector Characterization	New Structures	Full Detector Systems
Ioana Pintilie (NIMP Bucharest)	*Eckhart Fretwurst* (Hamburg University)	*Giulio Pellegrini* (CNM Barcelona)	*Gregor Kramberger* (Ljubljana University)
• Characterization of microscopic properties of standard-, defect engineered and new materials pre- and post-irradiation • DLTS, TSC, …. • SIMS, SR, … • NIEL (calculations) • WODEAN: Workshop on Defect Analysis in Silicon Detectors (G.Lindstroem & M.Bruzzi)	•Characterization of test structures (IV, CV, CCE, TCT,.) •Development and testing of defect engineered silicon devices •EPI, MCZ and other materials •NIEL (experimental) •Device modeling •Operational conditions •Common irradiations • Wafer procurement (M.Moll) • Device Simulations (V.Eremin)	• 3D detectors • Thin detectors • Cost effective solutions • Other new structures • Detectors with internal gain (avalanche detectors) • Slim Edges •3D (R.Bates) •LGAD (V.Greco) •Slim Edges (Vitaliy Fadeyev)	• LHC-like tests • Links to HEP • Links electronics R&D • Low rho strips • Sensor readout (Alibava) • Comparison: - pad-mini-full detectors - different producers •Radiation Damage in HEP detectors •Test beams (M.Bomen & G.Casse)