



Contribution ID: 25

Type: **not specified**

## **University of Bonn - Pixel Detector Integration: 3D and/or Monolithic**

*Tuesday, 24 April 2018 11:30 (20 minutes)*

Abstract: Pixel detectors are the working horse for tracking detectors in particle physics especially in high rate (100 GHz track rate) and radiation (10 MGy) environments. However, the state-of-the-art fabrication is laborious and expensive and the demands on precision, speed, and area are steadily rising. Directions pursued to mitigate challenges and/or reduce costs are (a) exploitation of 3D stacking, in particular high aspect ratio TSVs and (b) depleted monolithic CMOS pixel modules. The presentation will introduce the importance of pixel detectors in particle physics and give an overview over the state of the art and the current trends for future developments with some emphasis on the interplay between industrial developments and fundamental particle physics research.

**Presenter:** WERMES, Norbert (University of Bonn (DE))

**Session Classification:** Industry and Academia on Non-Destructive testing