CPAD Workshop 2023



Contribution ID: 96 Type: Oral

3D Heterogeneous Integration Multi-Project Wafer

Thursday, 9 November 2023 13:50 (15 minutes)

Fermilab is organizing a 3D Heterogeneous Integration Multi-Project Wafer (3DHI-MPW) run to meet the current advanced packaging needs of scientific instrumentation as well as to further the state-of-the-art in advanced packaging for small-volume users.

Our goals are to:

- 1. Leverage high density face-to-face/face-to-back wafer bonding for current and future projects
- 2. Start the first of many community-organized, regularly-scheduled 3DHI-MPW runs in order to:
- 1. Develop the 3DHI low-volume prototyping community, and
- 2. Create a 3DHI-MPW fabrication methodology analogous to the 2D VLSI MPW fabrication methodology currently enjoyed by the HEP community.
- 3. Advance and standardize industry-wide TSVs, (including)
- 1. Define and develop open standards to facilitate 3D integration of diverse heterogenous wafers from multiple foundries

Early Career

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Presenter: FAHIM, Farah (Fermilab) **Session Classification:** RDC4

Track Classification: RDC Parallel Sessions: RDC4: Readout and ASICs