Future sensor-chip packaging technologies at CiS

Friday 15 November 2013 11:40 (20 minutes)

In the past, the CiS research institute has made a mark as a vendor of reliable radiation hard planar silicon sensors for various important HEP detectors.

In addition to the sensor production, it is aiming for an extension of the possibilities of in-house sensor-chip packaging. Initial tests of a combination of electroless nickel UBM and solder ball bumping have been started. This batch-wise process presents a cost-efficient method for large-area silicon applications.

Further approaches include light induced or MoSi-based electroplating. The investigations of radiation hardness and minimization of the bump pad dimensions as requested for future pixel designs are as well an important objective which is pursued.

Primary author: WITTIG, Tobias (Technische Universitaet Dortmund (DE))

Co-authors: KOMPATSCHER, Arno Emanuel (Technische Universitaet Dortmund (DE)); ROEDER, Ralf (CiS FIMP)

Presenter: WITTIG, Tobias (Technische Universitaet Dortmund (DE))

Session Classification: 3D detectors and slim edges