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IBL modules construction experience and developments for future upgrade

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The first upgrade of the ATLAS Pixel Detector is the Insertable B-Layer (IBL), just installed in May 2014 in the core of ATLAS. Two different silicon sensor technologies, planara n-in-n and 3D, were used, connected with the new generation 13o0nm IBM CMOS FE-I4 readout chip via solder bump-bonds.
Production quality control tests were set up to verify and rate the performance of the modules before integration into staves. An overview of module design and construction, the quality control results and production yield will be discussed, as well as future developments foreseen for future detector upgrades.

Author: MOTOHASHI, Kazuki (Tokyo Institute of Technology (JP))

Presenter: MOTOHASHI, Kazuki (Tokyo Institute of Technology (JP))

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