

The ATLAS Diamond Beam Monitor

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The ATLAS Diamond Beam Monitor (DBM) is designed to measure the luminosity and provide important diagnostic information on the beam quality at the highest luminosity envisioned at the LHC. The DBM uses polycrystalline CVD diamond the same size and with the same pixel pattern as the Insertable B Layer (IBL) silicon sensors. The DBM consists of 8 telescopes with each telescope containing three planes of CVD diamond sensors. The telescopes are arranged in two groups of 4 at an eta of +/- 3.2 equally spaced in phi around the beam pipe. The DBM is currently under construction and its status as well as preliminary results from prototype DBM telescopes will be presented. This talk will also describe the lessons learned in constructing the DBM and the issues that should be addressed for future diamond based detectors.

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KA672438

Primary author: Prof. KASS, Richard (Ohio State)

Presenter: Prof. KASS, Richard (Ohio State)

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