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Status and Performance of the CDF Run II Silicon Detector

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The CDFII silicon detector with its 8 layers of double-sided silicon microstrip sensors and a total 722,432 readout channels is one of the largest silicon detector devices presently in use by a HEP experiment. We report our experience commissioning and operating this complex device during the first four years of Tevatron Run II program. The performance of the system and its impact on physics analysis are reviewed. As the luminosity delivered by the Tevatron increases, measurable effects of radiation damage have been observed. Recently updated studies of charge collection and noise versus applied bias voltage at several different integrated luminosities will be presented. These results and their impact on the expected lifetime of the detector will be discussed.

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