

LCFI Status Report: Sensors for ILC Vertex Detector

Saturday, 11 March 2006 11:00 (25 minutes)

Recent results are presented on the design and testing of silicon sensors for the ILC vertex detector and of the associated readout electronics. The sensors discussed are the Column Parallel Charge-Coupled Device (CPCCD) and the In-situ Storage Image Sensor (ISIS), both of which have the potential to satisfy the requirements for operation at the ILC. Progress with the development of the CPCCD is presented and the programme that will lead to readout at the speeds needed for operation at the ILC discussed. A radiation damage model based on full FEA and a simplified model has also been developed.

Measurements of the performance of the first ISIS are shown and progress with the design of the next generation of these devices discussed. Studies of the column parallel readout chip that will allow the fast readout and online processing of the data from the CPCCD are also presented.

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Session Classification: Tracking and Vertexing

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