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Evolution of Silicon Sensors Characteristics of the Current CMS Tracker

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The CMS silicon strip tracker is the largest detector of its kind. It is expected to operate at the LHC for more than 10 years. In order to quantify aging effects, it is important to keep track of the evolution of fundamental detector properties under radiation and thermal fluctuations. In the this talk we present our methods measuring the evolution of our sensors full depletion voltage and leakage current. We will also present a comparison between the change in detector properties as seen so far with the theoretical predictions. As an outlook we introduce our simulations of the evolution of the detector properties in the next ten years.

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