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Top-quark physics: Status and prospects

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Status and Prospects of Top-Quark Physics

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Abstract

After the discovery of the top quark more than 20 years ago, its properties have been studied in great detail both in production and in decay. Increasingly sophisticated experimental results from the Fermilab Tevatron and from Run 1 and Run 2 of the LHC at CERN are complemented by very precise theoretical predictions in the framework of the standard model of particle physics and beyond. In this article the current status of top-quark physics is reviewed, focusing on experimental results, and a perspective of top-quark physics at the LHC and at future colliders is given.

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