

1. Record Nr.	UNINA9910438108603321
Autore	Kuhr Thomas
Titolo	Flavor physics at the Tevatron : decay, mixing and CP-violation measurements in pp-collisions / / Thomas Kuhr
Pubbl/distr/stampa	Heidelberg ; ; New York, : Springer, c2013
ISBN	3-642-10300-6
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (VIII, 161 p.)
Collana	Springer tracts in modern physics, , 0081-3869 ; ; v. 249
Disciplina	539.72167
Soggetti	Colliders (Nuclear physics) Collisions (Nuclear physics) CP violation (Nuclear physics) Quantum flavor dynamics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Flavor in the Standard Model.- Theoretical Description of Mixing and CP-Violation -- Experimental Techniques -- Lifetime and Decay of B-Hadrons -- Flavor Oscillations -- CP-Violation in Mixing and the Interference of Mixing and Decay -- Direct CP-Violation -- Rare Decays -- Conclusions.
Sommario/riassunto	The book reviews the latest experimental results of charm and bottom flavor physics at the Tevatron proton-antiproton collider. The measurements of lifetimes, branching ratios and mixing properties of heavy flavored hadrons provide important constraints on fundamental parameters of the standard model – the elements of the CKM matrix. Comparisons of experimental results with theoretical predictions allow to search for physics beyond the standard model or to set bounds on parameters of new physics models. The experimental techniques developed at the Tevatron are highly relevant for the next generation flavor physics experiments at the LHC.