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Titolo	General Model Independent Searches for Physics Beyond the Standard Model [[electronic resource] /] / by Saranya Samik Ghosh, Thomas Hebbeker, Arnd Meyer, Tobias Pook
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Disciplina	539.72
Soggetti	Elementary particles (Physics) Quantum field theory Physical measurements Measurement Particle acceleration Elementary Particles, Quantum Field Theory Measurement Science and Instrumentation Particle Acceleration and Detection, Beam Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Overview of the Present Status of Theory -- Concept of Model Independent Search for New Physics -- Model Independent Searches at Past Experiments -- The Status of Model Independent Searches in Current Experiments, at the LHC -- Outlook and Scope of Model Independent Searches in the Future -- Summary and Conclusions.
Sommario/riassunto	This primer describes the general model independent searches for new physics phenomena beyond the Standard Model of particle physics. First, the motivation for performing general model independent experimental searches for new physics is presented by giving an overview of the current theoretical understanding of particle physics in terms of the Standard Model of particle physics and its shortcomings. Then, the concept and features of general model independent search for new physics at collider based experiments is explained. This is

followed by an overview of such searches performed in past high energy physics experiments and the current status of such searches, particularly in the context of the experiments at the LHC. Finally, the future prospects of such general model independent searches, with possible improvements using new tools such as machine learning techniques, is discussed.

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