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Particle Physics at LPTHE

Mardi 25 Fevrier 2020, 14 :00
LPTHE, library
Domaines : hep-ph

Titre : *Looking through the Higgs window for new physics*

Orateur : **Heidi Rzehak (CP3-Origins)**

Résumé : *The discovery of a Higgs boson in 2012 has been a milestone in particle physics and the start of a new era of collider physics where the exploration of a new type of particle is possible, which was not accessible before. The properties of this Higgs boson can serve as a window to new physics, and high experimental but also precise theoretical input is needed to open it.*

In this talk, after a short review of the status of the investigation of the discovered Higgs boson, I will discuss how the determination of its properties can shed light on physics beyond the Standard Model of particle physics and consider different approaches to possible new physics. I will comment on current and future improvements on the theory side needed to draw reliable conclusions from the experimental data.