Phenomenology of Physics Beyond the Standard Model

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Course Description:
This lecture covers the following topics:
- Shortcomings of the Standard Model (SM), hierarchy problem and further motivations for physics beyond the SM (BSM)
- BSM physics: specific models versus effective field theories
- Precision tests of the electroweak and strong interactions
- Properties of supersymmetric theories
- Electroweak symmetry breaking
- Examples for BSM phenomenology at the LHC and beyond
- Axions
- Dark Matter: candidates, indirect and direct searches

Prerequisites:
Basic knowledge in Quantum Field Theory or Advanced Particle Physics

Date and Place:
- Mon, 9:15 – 10:45, SR 2, Building 2a, Bahrenfeld
- Thu, 9:15 – 10:00, SR 2, Building 2a, Bahrenfeld

Problems Classes:
- Thu, 10:00 – 10:45, SR 2, Building 2a, Bahrenfeld

Starting on: 18 October 2018