



Universität Hamburg

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CHAMPP

CENTER IN HAMBURG FOR
ASTRO-, MATHEMATICAL AND
PARTICLE PHYSICS

LECTURE COURSE IN THE QUANTUM UNIVERSE RESEARCH SCHOOL

Summer Term 2024

Experiments on Physics Beyond the Standard Model

Gregor Kasieczka, Peter Schleper

Course Description:

This lecture will provide an introduction of experimental aspects on physics beyond the Standard Model. The following topics will be covered:

- The shortcomings of the Standard Model
- Supersymmetry
- Grand Unified Theories
- Compositeness
- Dark matter
- Axions
- Exotic neutrinos
- CP violation
- Future colliders

Prerequisites:

Knowledge on particle physics on the level of a bachelor degree in physics is recommended, but not absolutely necessary.

Date and Place:

Tue, 11:00–12:30, SR 3114, Bahrenfeld
Fri, 10:15–11:00, SR 1076, Bahrenfeld

Problem Classes:

Fri, 11:00–11:45, SR 1076, Bahrenfeld

Starting on:

2 April 2024
