Physikalisches Institut
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PHYSIKALISCHES KOLLOQUIUM

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LOOKING BEYOND THE STANDARD MODEL OF PARTICLE PHYSICS

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The Standard Model of particle physics is incredibly successful in delivering predictions that conform with the experimental observations at collider experiments so far. However, the Standard Model fails completely to give answers to questions such as: What is dark matter? Why is there more matter than antimatter in the universe? Why do neutrinos have such tiny masses?

In this talk, after an introduction of the Standard Model of particle physics, I will discuss its shortcomings and how collider experiments can shed light on physics beyond the Standard Model. I will explain different approaches towards possible deviations from the Standard Model from a theorist's perspective.