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Bethe Colloquium

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The theoretical physics ecosystem behind the Higgs boson discovery

A simplified history of the Higgs boson has Peter Higgs positing it in the mid-1960s followed by a long wait while experimentalists progressively turned up collider energies until it appeared several decades later. However, in order for both the hypothesis and the experimental discovery to occur, a vast and complex theory ecosystem, across multiple subfields, had to thrive in the years before Higgs's hypothesis and in the years that followed, building up to its discovery. In the process I describe how important the discovery of the Higgs boson has been to particle physics and what it means for the future. I also provide a response to Anderson's recent statement in Nature: "Maybe the Higgs boson [of particle physics] is fictitious!"

Lecture Hall 1
Physikalisches Institut - Nussallee 12 - 53115 Bonn
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