

## PHYSIKALISCHES KOLLOQUIUM

AM 23. JANUAR 2023 UM 17 UHR C.T.

## IM GROßEN HÖRSAAL

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## THE HIGGS BOSON: I THINK WE HAVE IT!

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"I think we have it" — with these words, the then Director General of CERN, Rolf-Dieter Heuer, commented on July 4th, 2012 the detection of a new elementary particle at the Large Hadron Collider (LHC). The search for the Higgs boson, which had lasted almost 50 years, had reached its goal. With the discovery of the Higgs boson, a new era began at the LHC, the precise measurement of the particle's properties. With the help of these properties, conclusions can be drawn about the fundamental structure of the universe and matter. In this colloquium, I will discuss the latest result and prospects in the quest to decipher the Higgs boson.