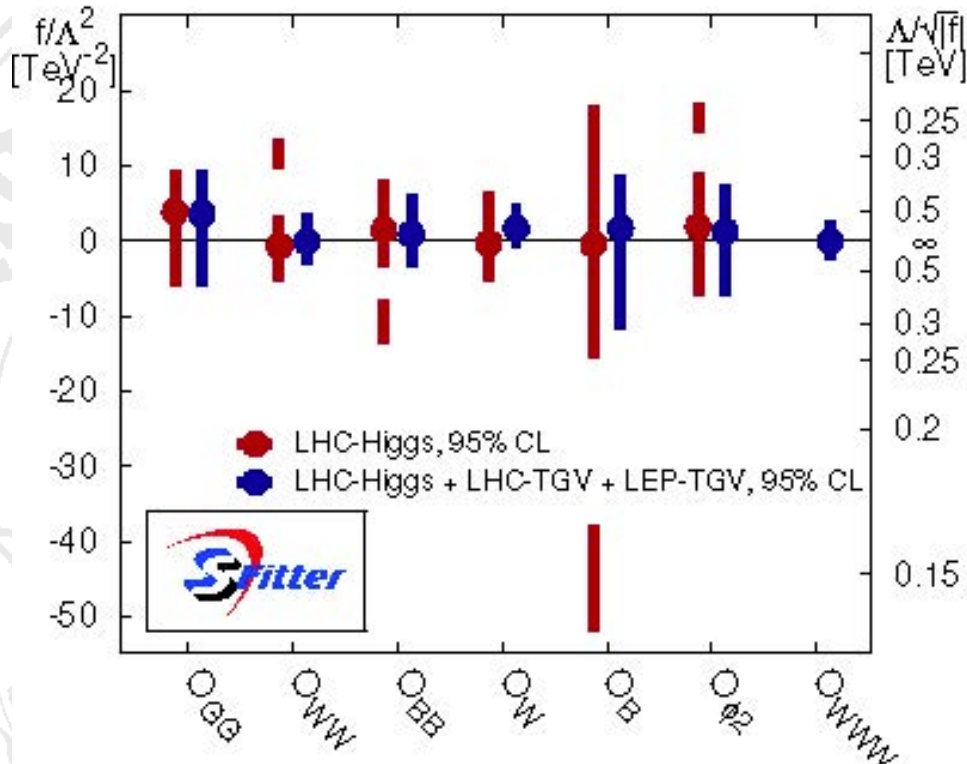




PHYSIKALISCHES KOLLOQUIUM

AM 29. MAI 2017 UM 17 UHR C.T.

IM HÖRSAAL I, PHYSIKHOCHHAUS



THEORETICAL PHYSICS WITH AND FOR THE LHC

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With the discovery of a light Higgs boson, the LHC has firmly established quantum field theory as the language of theoretical particle physics. This affects current theoretical and experimental particle physics in many ways. Now, we know that (effective) field theory is the language we can rely on in performing analyses, communicating results, and interpreting them. In addition, quantum field theory allows us to firmly link many aspects of fundamental physics, from the LHC to for example the Fermi space telescope. I will explain how LHC physics has rapidly moved from a model-driven field to a data-driven field, with an entirely new set of theory tasks. In particular, we will see how theorists need to find a new balance between data interpretation and the so-called big picture(s).