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## Global fit of the Higgs and the Electroweak sector with the ATLAS experiment

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Run-2 of the LHC commences the precision era on the energy frontier in particle physics. This enables to perform measure important kinematic distributions which serves as input to constrain the Standard Model Effective Field Theory (SMEFT). SMEFT provides a global interpretation framework which is model independent where measurements of different processes can be consistently interpreted to search for indirect signatures of undiscovered physical phenomena, which occur at energies much larger than those reached by particle collisions at the LHC. In this poster I will discuss the results from a global SMEFT fit to Run-2 data from the ATLAS experiment which includes combined measurements of Higgs and electroweak processes. This includes kinematic properties of Higgs production measured across five decay modes in the STXS (simplified template cross-sections) framework and differential distributions from the production of  $WW$ ,  $WZ$ ,  $ZZ$ , and  $Z+2$ jets in the electroweak sector. Together with the electroweak precision observables measured at LEP, these measurements allow to pin down the allowed deviations from the Standard Model in SMEFT.

### In-person participation

Yes

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