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## Searches for beyond the standard model Higgs in ATLAS & CMS

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The discovery of a Higgs boson, consistent with the Standard Model, has heralded a new era in which fundamental scalar fields may be safely called to play a central rôle to solve long-lasting physics questions : grand unification of forces, supersymmetry, dark matter, cosmic inflation... To express it in other words, if the sophisticated Brout-Englert-Higgs mechanism really works as we believe it should, it would be very strange that Nature has used it only once to break the  $U(1) \times SU(2)$  symmetry ! Searching for the existence of extra Higgs (scalar) bosons - be they neutral or charged - has then become one of the research lines that could plausibly deliver fruitful results in the coming years.

On behalf of the ATLAS and CMS collaborations, I will present the most striking results and the best limits obtained up to now at LHC in proton-proton collisions at centre-of-mass energies of 7 and 8 TeV. I will conclude my presentation by a few words on the LHC discovery potential - with respect to new Higgses - in the coming 3 to 4 years.

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