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Who ordered that? Investigations of the top-Higgs connection

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The top quark is the heaviest known elementary particle, and it features a tantalizing numerical coincidence: from its measured mass, the Standard Model predicts a value of its Yukawa coupling to the Higgs boson strikingly close to 1. This stimulated a flourishing theoretical literature entertaining the possibility of a deep connection between the top quark and the actual mechanism of Electro-Weak Symmetry Breaking.
This talk reviews the state of the art and the future prospects for the following, complementary, experimental efforts at the LHC: precisely measuring the top quark mass; constraining the modulus of the Higgs-top Yukawa coupling via the search for the ttH process; and constraining the phase of this coupling (relative to the Higgs coupling to W bosons) by exploiting a subtle interference effect.

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