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## Double Higgs Production via Vector Boson Fusion in SMEFT at the LHC

*Tuesday 1 July 2025 10:00 (30 minutes)*

While gluon fusion dominates Higgs pair production at the LHC, vector boson fusion (VBF) offers a unique window into Beyond the Standard Model (BSM) physics through its distinctive kinematic features and direct sensitivity to Higgs-vector boson interactions. We perform a comprehensive analysis of double Higgs production via VBF in the Standard Model Effective Field Theory (SMEFT), systematically investigating how dimension-6 and dimension-8 bosonic operators. We will present the results from a recent paper, hep-ph/2506.12917.

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