

PAUL SCHERRER INSTITUT



# Particle Theory Seminar

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“Vector Boson Fusion at the LHC”

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**Abstract:**

Vector boson fusion processes constitute an important class of reactions at hadron colliders, being a powerful tool to distinguish signatures of a light Higgs boson from strong weak boson scattering. For precision measurements at the LHC in the vector boson fusion channel, theoretical predictions beyond the lowest order are indispensable.

I will sketch the computation of next-to-leading order QCD corrections to vector boson scattering processes by means of a parton-level Monte Carlo program and discuss how higher order contributions affect cross sections and kinematic distributions.