

# Probing spontaneous CP-violation through precision Higgs observables

*Tuesday, 17 February 2026 15:50 (20 minutes)*

Spontaneous CP-violation (SCPV) is one of the interesting possibilities for explaining observed CP-violation. As a simple realization of SCPV, we consider 2 Higgs doublet models (2HDMs), where complex phases of the Higgs doublets can be a source of SCPV. We discuss two important phenomenological consequences of the SCPV 2HDMs, i.e., non-decoupling nature of extra Higgs bosons and constrained Yukawa structure. We also discuss how we can explore such a scenario at High-Luminosity LHC.

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**Session Classification:** parallel session B: Higgs