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Testing CP-violation in the scalar sector at lepton colliders

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We proposed a novel method to test the CP-violation in scalar sector at Higgs factories. Based on the CP-properties' analysis, if we have already discovered two scalars, the existence of three vertices H_1ZZ , H_2ZZ , and H_1H_2Z at tree level becomes the evidence for us to confirm CP-violation. At a lepton collider, all four components of energy-momentum can be reconstructed, and thus all these vertices can be measured model-independently.

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