Particle Physics on the Plains 2022 Part 2



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Phenomenology of Two Higgs Doublet Model with Complex Scalar Singlet extension

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Extension of the Two Higgs Doublet model augmented with a complex scalar singlet (2HDMS) is a well motivated candidate for Beyond Standard Model (BSM) Physics. In this talk, we focus on different aspects of 2HDMS including dark matter (DM) phenomenology of 2HDMS and the impact of inflation on low energy phenomenology. We have performed parameter scans to study the impact of relic density and direct detection scenarios on the model parameter space for both cases. Some representative benchmarks are chosen and potential signals at future e+e- colliders are presented.

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