

Exploring new features of the $Z_2 \times Z_2$ 3HDM with two component dark

Monday 14 April 2025 10:00 (30 minutes)

We discuss the constraints and phenomenology of the $Z_2 \times Z_2$ three Higgs doublet model (3HDM) with two inert scalars, originating two dark matter (DM) particles. We elucidate the competing vacua and we submit the model to all theoretical, collider and astrophysical constraints. We find unexplored regions of parameter space and investigate their experimental signatures. The whole mass range for a given component can be populated for the model, even for intermediate mass regions.

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