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Twin Dark Matter & Early Cosmology

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In this talk, I explore the early cosmology and the possibilities for dark matter candidates in Twin Higgs theories of the weak scale – in particular, within a minimal implementation, the Fraternal Twin Higgs. The phenomenology of this class of models is rich: some highlights include the presence of a “twin WIMP miracle”; asymmetric twin dark matter made of twin baryons with the correct mass (set by dynamics underlying naturalness, not tuning) to explain the observed $O(1)$ ratio of dark matter to baryon energy densities; and various new phase transitions beyond those of the Standard Model alone.

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