

## Particle Physics Challenges



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## VERY supersymmetric dark sectors

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If supersymmetry exists at any scale, it may be a preserved symmetry in the dark sector enforcing a degeneracy between its lowest lying fermions and bosons. In this talk I explore the plausibility of this scenario, the implications for the early universe, and the corresponding signatures. As I will show this completely changes the thermal history of the dark sector resulting in the sector to undergo “codecay” in the bulk of the parameter space. This results in new phenomenological signatures and presents a new way to discover (potentially high scale) supersymmetry.

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