## Phenomenology 2021 Symposium



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## Linking the supersymmetric standard model to the cosmological constant

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In string theory picture, Planck scale  $M_{\rm Pl}$ , the supersymmetry-breaking scale  $m_s$ , electroweak scale  $m_{\rm EW}$  and vacuum energy density (cosmological constant)  $\Lambda$  are to be dynamically determined from string scale  $M_s$ . Here we consider a model that links the supersymmetric electroweak phenomenology to string theory motivated flux compactification approach. The model breaks supersymmetry through a combination of the racetrack K\"ahler uplift mechanism and anti-D3-brane in the KKLT. The introduction of the Higgs field allows a small  $\Lambda$  and a big  $m_s$  simultaneously.

## **Summary**

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