Phenomenology 2022 Symposium: From Virtual to Real



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A New Horizon in the Randall-Sundrum Phase Transition

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Randall-Sundrum models are an attractive, extra-dimensional geometric solution to the hierarchy problem. Stabilization of these geometries is important to obtain relevant low-energy phenomenology. This also provides dynamics for early universe cosmology via motion of branes through a Radion potential. Although much is known about the dynamics close to the global minimum of the Radion potential, the configurations far away from the minimum are hard to study. In our work, we map out the stationary points of the Radion potential, considering an inflationary geometric ansatz, and provide a consistent dynamical picture of the early universe that serves to interpolate between the above stationary points, and remark on the nature of the Phase transition between them

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