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**Pengfei Liu\*** (p11iu@caltech.edu) and **Thomas Y Hou**. *Stable self-similar singularity for a 1D model of the Axisymmetric Euler.*

We study the self-similar singularity of a 1D model of the 3D axisymmetric Euler equations. The model approximates the dynamics of the Euler equations on the solid boundary of a cylindrical domain. We prove the existence of a discrete family of self-similar profiles for this model corresponding to different lead orders of the initial data. We demonstrate the stability of the self-similar singularity scenario by linearizing the discretized dynamic rescaling equations which govern the evolution of spatial profiles in the singular solutions. (Received March 03, 2017)