Yariana Diaz* (yariana-diaz@uiowa.edu), Ryan Kinser and Cody Gilbert. Total stability functions for Dynkin quivers and almost split sequences. Preliminary report.

We provide an efficient criterion for determining which stability functions make all indecomposable representations of a Dynkin quiver Q stable. By definition this requires considering an inequality for each pair consisting of one indecomposable representation of Q and one of its proper, non-zero subrepresentations. We use Auslander-Reiten theory to significantly reduce the number of inequalities down to one inequality for each almost split sequence with indecomposable middle term. (Received March 08, 2021)