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**Benjamin Z Webb\*** ([bwebb@mathematics.byu.edu](mailto:bwebb@mathematics.byu.edu)), 308 TMCB, Brigham Young University, Provo, UT 84602. *Intrinsic Stability of Dynamical Networks*.

The dynamics of real networks are resilient to changes in their environment that cause time-delays. In this talk we introduce a new notion of stability that can be used to describe how a network maintains stability under such changes. We refer to this stronger form of stability as intrinsic stability and show how intrinsic stability is preserved under changes to the network's structure that correspond to time-delays. This type of stability is of potential importance in applications, especially network design, since time-delays often have a destabilizing effect on a network's stability. (Received September 13, 2016)