1135-18-2052 Emily Riehl* (eriehl@math.jhu.edu), Department of Mathematics, Johns Hopkins University, Baltimore, MD 21218, and Evan Cavallo and Christian Sattler. On the directed univalence axiom. Preliminary report.

The bisimplicial sets model of homotopy type theory has, in addition to an interval type I, a directed interval type 2, which respectively parametrize "paths" and "arrows" inside a general type. Sattler's *directed univalence axiom* asserts that arrows in the universe are equivalent to spans of types. This talk will contain a progress report on (i) efforts to verify the directed univalence axiom in the bisimplicial sets model and (ii) explorations of its consequences in the type theory for synthetic ∞ -categories introduced by Riehl and Shulman. (Received September 25, 2017)