1135-55-2841 Dan Christensen (jdc@uwo.ca), London, Ontario, Canada, Morgan Opie (opie@math.harvard.edu), Cambridge, MA, Egbert Rijke* (erijke@andrew.cmu.edu), Pittsburgh, PA, Luis Scoccola* (lscoccol@uwo.ca), London, Ontario, Canada, and Aliaksandra Yarosh (aly21@pitt.edu), Pittsburgh, PA. Localization at degree p maps in Homotopy Type Theory.

Homotopy type theory (HoTT) is an extension of Martin-Löf's dependent type theory with the univalence axiom and higher inductive types. In HoTT we can interpret types as spaces, and many familiar constructions of homotopy theory can be translated. We use higher inductive types to define the localization at the degree p maps on the circle, exhibiting degree p-local types as a reflective subuniverse. Our main result is that the localization of a simply connected pointed type at the degree p map localizes its homotopy groups away from p. In doing this we characterize the loop spaces of the A-nullification of a type, and we give a characterization of the localization at the degree p map of an H-space as a sequential colimit. (Received September 26, 2017)