1106-54-109 **Jason Haarmann** and **Meg P Murphy***, meg.page.murphy@gmail.com, and **Casey S Peters** and **P Christopher Staecker**. *Homotopy equivalence of finite digital imnages.*

For digital images, there is an established homotopy equivalence relation which parallels that of classical topology. Many classical homotopy equivalence invariants, such as the Euler characteristic and the homology groups, do not remain invariants in the digital setting. This paper develops a numerical digital homotopy invariant and begins to catalog all possible connected digital images on a small number of points, up to homotopy equivalence. (Received July 17, 2014)