1070-51-18   **Brandon M Rowekamp*** (`browekam@nd.edu`). *The Geometry of Planar Pixelations*. Preliminary report.

In a pixelated plane (with pixels of size r) we consider the region X_r filled by the pixels that touch a given semialgebraic set X. I will explain how to associate to X_r a planar PL region Y_r so that as r goes to 0 the normal cycle of Y_r converges in the sense of currents to the normal cycle of X_r. This proof is based on a scanning technique inspired by Morse Theory coupled with some curvature estimates going back to a classical work of J. Milnor. (Received December 14, 2010)