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Sam Lightwood* (lightwoods@wcsu.edu), Department of Mathematics, WCSU, 181 White Street, Danbury, CT 06810. *Property A and Krieger equivalence classes in higher dimensional subshifts*. Preliminary report.

For a \mathbb{Z} subshift C , Krieger [98] derives some conjugacy invariants from periodic point information. He identifies property A of subshifts, identifies a shift invariant subset Y_C of C (derived from periodic point data) and introduces an order on Y_C and shows they are conjugacy invariants. An order respecting product is defined on Y_C which produces a conjugacy invariant semigroup out of the order equivalence classes. These structures have since been used in classification and embedding efforts. We discuss efforts to extend these ideas to \mathbb{Z}^2 subshifts. Krieger's order is derived in part from the natural order on \mathbb{Z} . Part of the extension challenge is the absence of such a natural order on \mathbb{Z}^2 . (Received August 07, 2007)