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Arek Goetz* (goetz@sfsu.edu), 1600 Holloway Ave, San Francisco, CA 94132. *First example of an exchange of cones with an infinite number of periodic discs in every neighborhood of a disc.* Preliminary report.

We report on a preliminary work with Peter Ashwin from Exeter university. We study a family of measure preserving rigid exchanges of cones of the plane. The local existence of an infinite number of periodic discs for an irrational piecewise isometries has been experimentally reported and pointed out already in Ergodic Theory in 2000 by Adler, Kitchens, Tresser. More recently Quas and Goetz showed the existence of periodic families of discs for a two half plane map (Goetz's map) in an arbitrary neighborhood of infinity, yet the local behavior remained open.

In this short talk we report on an idea that likely leads to examples of three cone exchanges with local neighborhoods containing infinitely many discs. (Received September 05, 2017)