On the minimal non-invertible skew-products of 2-manifolds

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In this talk we will present a new way to construct minimal non-invertible skew products of torus and we will positively answer the question whether there exists a non-invertible minimal map of the Klein bottle. The construction is based on a construction of minimal homeomorphism of Klein bottle by Parry from [3] and blowing-up techniques introduced by Hric and Jäger in [1].

[1] Hric, R., Jäger, T., A construction of almost automorphic minimal sets, *Israel J. Math.* 204, (2014), 373–395.

[2] Kolyada, S., Snoha, L., Trofimchuk, S., Noninvertible minimal maps, *Fund. Math.* 168, (2001), 141–163.

[3] Parry, W., A note on cocycles in ergodic theory, *Contemp. Math.* 28, (1974), 343–350.