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**Michael C. Sullivan\*** ([msulliva@math.siu.edu](mailto:msulliva@math.siu.edu)), Math Dept (4408), Southern Illinois University, Carbondale, IL 62901. *Twist-wise flow equivalence and matrices over a non PID ring.*

Twist-wise flow equivalence, a problem in the dynamics of topological flows, is reduced to the classification up to matrix equivalence of square matrices over the group ring  $\mathbb{Z}\mathbb{Z}/2$ , which is not a PID. Thus, a topological problem is now an open algebra problem. Much of the talk is based on joint work with Mike Boyle. (Received July 31, 2007)