

ROKHLIN DIMENSION FOR FLOWS

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We introduce a notion of Rokhlin dimension for one-parameter automorphism groups of C^* -algebras, which generalizes Kishimoto's Rokhlin property for flows in the same way Rokhlin dimension for actions of the integers generalizes the corresponding Rokhlin property. The finiteness of this dimension is strong enough to imply a plethora of structural and permanence results on crossed products by such flows, while also general enough to cover all actions arising from free flows on locally compact metrizable spaces with finite covering dimension. In particular, these crossed products have finite nuclear dimension and provide a rich source of classifiable non-unital C^* -algebras. This is joint work with Ilan Hirshberg, Gabor Szabo, and Wilhelm Winter.