

## Dynamical Systems Arising from Units in Krull Rings

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ABSTRACT. To a countable Krull ring  $R$  and units  $\xi_1, \dots, \xi_d \in R$  we associate a  $\mathbb{Z}^d$ -action by automorphisms of the compact abelian group  $\widehat{R}$ . This generalizes the ‘ $S$ -integer’ dynamical systems described by Chothi, Everest and Ward. We examine the extent to which some of their results extend and investigate the relationship between algebraic properties of  $R$  and dynamical properties of the associated action.