

Involutions at the crossroads of singularities and dynamics

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An involution is a map that is its own inverse. This intriguing condition leads us naturally into the singularities, as involutions act as symmetries of folds, and into discrete or continuous dynamical systems, where they act as antisymmetries of reversible diffeomorphisms or vector fields. Around 20 years ago, Marco Teixeira introduced us to an inspiring path in these directions. In this talk, I will present the developments in both directions we've made since then. This journey has been undertaken in collaboration with Marco Teixeira, Solange Mancini, Patricia Baptistelli, Isabel Labouriau, and Marcelo Salazar.