

Recognition of symmetries in reversible maps

Miriam Manoel¹

¹ ICMC-USP

This talk is about germs of diffeomorphisms that are reversible under an involution. We establish that this condition implies that, in general, both the family of reversing symmetries and the group of symmetries are infinite, in contrast with continuous-time dynamics, where typically there are finitely many reversing symmetries. From this we obtain a lot of consequences, as for example two chains of fixed-points subspaces of involutory reversing symmetries that are useful to geometric information on the discrete dynamics generated by a given diffeomorphism. The results are illustrated by the generic case in arbitrary dimension, when the diffeomorphism is the composition of transversal linear involutions. This is a joint work with Patricia H. Baptistelli (Universidade Estadual de Maringá, Brazil) and Isabel S. Labouriau (Universidade do Porto, Portugal).