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*Maximal isotopies, transverse foliations and orbit forcing theory for surface homeomorphisms*

The course deals about the dynamical study of surface homeomorphisms, more precisely those that are isotopic to the identity (for example defined by time dependent vector fields). We will begin by exposing Brouwer's theory about plane homeomorphisms and its equivariant foliated version. Some applications will be discussed. Then we will explain how to construct a forcing orbit theory for such homeomorphisms in analogy with the classical Sharkovski's theorem for maps defined on an interval. Then we will give further very recent applications. No background is needed for this course but some basic notions of dynamical systems and topology of surfaces.