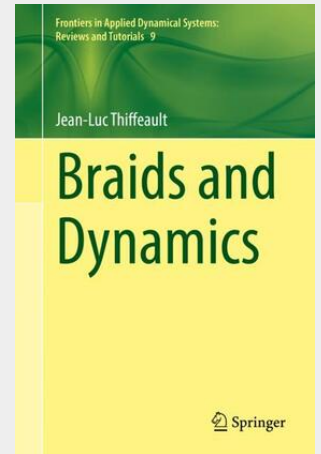


Thiffeault

Braids and Dynamics

This monograph uses braids to explore dynamics on surfaces, with an eye towards applications to mixing in fluids. The text uses the particular example of taffy pulling devices to represent pseudo-Anosov maps in practice. In addition, its final chapters also briefly discuss current applications in the emerging field of analyzing braids created from trajectory data. While written with beginning graduate students, advanced undergraduates, or practicing applied mathematicians in mind, the book is also suitable for pure mathematicians seeking real-world examples. Readers can benefit from some knowledge of homotopy and homology groups, but these concepts are briefly reviewed. Some familiarity with Matlab is also helpful for the computational examples.

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