

Mapping class groups

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Abstract:

The reading seminar will follow the book “A Primer on Mapping Class Groups”. We will cover a choice of topics from the following list:

1. Curves, surfaces, and hyperbolic geometry
2. Mapping class groups basics
3. Dehn twists
4. Generating the mapping class group
5. Presentations and low-dimensional homology
6. The symplectic representation and the Torelli group
7. Torsion in the mapping class groups
8. The Dehn–Nielsen–Baer theorem
9. Braid groups
10. Teichmüller space
11. Teichmüller geometry
12. Moduli space
13. The Nielsen–Thurston classification
14. Pseudo-Anosov theory
15. Thurston’s proof of the Nielsen–Thurston classification

References:

B. Farb & D. Margalit, *A Primer on Mapping Class Groups*, Princeton University Press, 2012.