THE KAZHDAN PROPERTY OF THE MAPPING CLASS GROUP OF CLOSED SURFACES AND THE FIRST COHOMOLOGY GROUP OF ITS COFINITE SUBGROUPS

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Abstract. We show that the mapping class group of a closed surface of genus 2 does not satisfy the Kazhdan property by constructing subgroups of finite index having a nonvanishing first cohomology group. We also construct some subgroups of finite index in the mapping class group of a genus 3 surface and calculate their first cohomology groups, which all turn out to be trivial. Most of the calculations have been carried out by computer using GAP.