

Math 534B Homework 3.

Due 2/10

- 1) Read Example 1.24 in Hatcher. Compute directly (not from the derived formula, but from the method) the fundamental group of the complement of the trefoil knot, $K_{2,3}$.
- 2) Hatcher Chapter 1.2, Exercise 3
- 3) Let X be the quotient space obtained from S^2 by identifying the north and south poles. Compute $\pi_1(X)$.
- 4) Read Chapter 0, page 5 on surfaces (the first paragraph). Use this construction to calculate the fundamental group of all orientable surfaces M_g of genus g .