## UPDATED GENERAL INFORMATION - FEBRUARY 5, 2018

## First take-home assignment

There were 35 points possible, and the cutoff for the lowest A was 27 . Your normalized score for the assignment (between 3 and 4) is given by the linear interpolation formula

$$
3+\frac{\text { points }-27}{8}
$$

Problem 1 was worth 10 points, and the three parts of Problem 2 were worth 10,5 and 10 points respectively.

Here are a few general comments. The most common difficulties arose in 2.(a), and they were recognizing the need to prove that the image of $p \mid E_{0}$ is onto or proving this assertion. More generally, in many cases the terminology and reasoning could have been more precise; this is a constant issue, and its importance certainly extends to original research. The goal should be to write things as clearly as one would express them to another student who is having trouble understanding the material.

In Problem 1 some papers gave an explicit proof that the squaring map from $S^{1}$ to itself was a covering space projection. When I wrote up the exercises, I (perhaps incorrectly) assumed that this had been covered in the preceding course, so no points were deducted if this was not proved. However, students who did include a solution deserve commendation for being cautious and including the details. In writing up take-home assignments, it is usually better to include details in doubtful cases.

