

1072-57-233

R. Inanc Baykur*, baykur@brandeis.edu. *Sections of surface bundles and Lefschetz fibrations*. Preliminary report.

We will discuss the possible self-intersection numbers for sections of surface bundles & Lefschetz fibrations over surfaces, and the (un)boundedness of the number of critical points of a Lefschetz fibration with maximally self-intersecting sections, for fixed fiber and base genera. We will also calculate the stable commutator length of certain elements in the mapping class groups of surfaces with boundary, yielding a stabilization result drastically different than in the case of closed surfaces. (Received June 28, 2011)