

MATEMATISKA INSTITUTIONEN
STOCKHOLMS UNIVERSITET
Avd. Matematik

SJÄLVSTÄNDIGT ARBETE I MATEMATIK

Onsdagen den 14 september kl. 9.30–10.30 presenterar Mihai-Dinu Lazarescu sitt arbete “Lens Spaces” (30 högskolepoäng, avancerad nivå).

Handledare: Rikard Bögvad

Plats: Sal 21, hus 5, Kräftriket

Abstract: Lens spaces are identification spaces. Their definition involves two parameters p and q . As a first easier example of an identification space I will construct the Möbius strip. Then I will give three different recipes for constructing lens spaces. Furthermore, I classify them into homeomorphic classes.

Next I define homotopies, homotopy equivalence and the fundamental group. The fundamental group lives essentially in two-dimensional space. For higher dimensions we will use homology groups. The parameter p is essential for homology.

Ideally, if time permits, I should like to show that lens spaces which are not homeomorphic can very well be homotopically equivalent. This depends strongly on the parameter q .

Alla intresserade är välkomna!