

# Homework 08

## Cellular Homology

Algebraic Topology - Winter 2021

Due: **April 01, 2021, 11:59 pm**

Compute the cellular homology of the following spaces for the coefficients  $\mathbb{Q}$ ,  $\mathbb{Z}/p\mathbb{Z}$  (where  $p$  is a prime number), and  $\mathbb{Z}$  :

1. genus  $g$  surfaces,
2.  $\mathbb{RP}^2$ ,
3. Klein bottle.

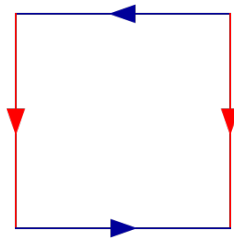


Figure 1: Gluing diagram of a Klein bottle.