



PH.D. IN MATHEMATICS AND COMPUTER SCIENCE

COURSE SCHEDULE

ACADEMIC YEAR 2020/2021

INTRODUCTION TO HOMOLOGY THEORY

PROF. FRANCESCO POLIZZI
UNIVERSITY OF CALABRIA

The course is aimed to be a gentle introduction to homology theory and its applications. In particular, we plan to discuss the following topics:

- Singular homology
- Eilenberg-Steenrod axioms and their consequences
- Topological degree
- CW complexes
- Geometrical applications: The Borsuk-Ulam theorem, the Jordan curve theorem, the Brouwer fixed point theorem, the Lefschetz-Hopf fixed point theorem and the Invariance of Domain theorem.

19/10/2021

20/10/2021

21/10/2021

26/10/2021

27/10/2021

28/10/2021

REFERENCES:

G. E. Bredon: "Topology and Geometry", Springer GTM 139 (1993), Chapter IV.

FROM 3 PM TO 5 PM

CUBO 30B - ROOM MT12