

PH.D. IN MATHEMATICS AND COMPUTER SCIENCE

COURSE SCHEDULE

ACADEMIC YEAR 2020/2021

ATKIN-LEHNER THEORYDR. MARIA VALENTINO
UNIVERSITY OF CALABRIA

19 - 23 April

We shall first introduce primary and fundamental facts on modular cusp forms $S_k(N)$ for the fundamental group $\Gamma_0(N)$ and Hecke operators T_p with p in \mathbb{Z} prime.

Afterward, we will get to the core addressing the Atkin-Lehner theory and the famous result of T_p being self-adjoint operators when acting on the subspace of $S_k(N)$ of newforms.

Finally, if time allows, we shall mention some related topics that range from the construction of families of modular forms to the inverse problem of Galois theory.