

# Seminarium geometrów

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Poniedziałek, 22.01.2024, 14:15 HS

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## On the $L^p$ -cohomology of semisimple groups and buildings

Abstract:  $L^p$ -cohomology is a quasi-isometry invariant popularized by Gromov. In the case of semisimple groups over local fields, he predicts it behaves in a classical way in degrees up to the rank. The case of degree 1 is well-understood thanks to results by Pansu and Cornuier-Tessera. In this talk we will review these results and discuss two new results. First, we show vanishing of  $L^p$ -cohomology in degree 2 for most semisimple groups of rank at least 3. Then we show non-vanishing in degree equal to the rank for non-Archimedean semisimple groups and for more general types of buildings.

*streaming via ZOOM:*

Meeting ID: 967 6507 7409

Meeting password: "GS" (two letters) followed by the Euler characteristic of the closed orientable surface of genus 89.