



CENTRO DE
MATEMÁTICA
UNIVERSIDADE DO PORTO

Algebra, Combinatorics and Number Theory Seminar

Date. Monday, May 31, 2021 - 3pm (UTC+1) ¹

Speaker. André Macedo - University of Reading

Title. Local-global principles for norms

Abstract. Given an extension L/K of number fields, we say that the Hasse norm principle (HNP) holds if every non-zero element of K which is a norm locally at every completion of K is in fact a global norm from L . If L/K is cyclic, the original Hasse norm theorem states that the HNP holds. More generally, there is a cohomological description (due to Tate) of the obstruction to the HNP for Galois extensions.

In this talk, I will give an overview of this local-global principle and present work developing explicit methods to study this principle for non-Galois extensions. I will additionally discuss some recent generalisations of these methods to study the Hasse principle and weak approximation for products of norms as well as consequences in the statistics of these local-global principles.

¹<https://videoconf-colibri.zoom.us/j/85917155304?pwd=ZU1YUGJRcTJzTOVjSHF5N2hNdTJQZz09>