

BOSTON UNIVERSITY NUMBER THEORY SEMINAR

On 2-torsion in class groups of odd degree number fields

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Monday, Apr 11 at 4:15 pm
111 Cummington Street, MCS B21
Tea and cookies in MCS 144 at 4:00 pm

Abstract: The Cohen-Lenstra and Cohen-Martinet-Malle heuristics give predictions on the average size of p -torsion subgroup in class groups of fixed-degree number fields. In 2005, Bhargava confirmed these predictions in the case when $p = 2$ and the number fields are cubic. In this talk, I will discuss some results on the average number of 2-torsion elements in class groups of number fields with fixed odd degree that give theoretical evidence towards the Cohen-Martinet-Malle heuristics for higher degree number fields. These results include joint works with Manjul Bhargava as well as with Wei Ho and Arul Shankar.