Séminaire de théorie des nombres

Le 05 décembre 2022 à 14h (Jussieu)

Multiple zeta values in block degree 2, and the period polynomial relations

Exposé de Steven Charlton (Universität Hamburg)

Résumé : I introduced the block decomposition on multiple zeta values in order to understand and generalise some (conjectural) families of relations. It was extended to a filtration on motivic multiple zeta values by Francis Brown and further extended by Adam Keilthy, who showed it gives a route to understanding the structure of the motivic Lie algebra. I will discuss a recent project with Keilthy where we are able to understand the structure in block degree 2 by evaluating $\zeta(2, ..., 2, 4, 2, ..., 2)$ in terms of double zeta values, and where we showed how the famous period polynomial relations for double zeta values arise in an explicit way from the so-called block relations introduced in Keilthy's thesis.