

# Séminaire de théorie des nombres

Le 16 janvier 2023 à 14h (Jussieu)

## HKG-curves and cohomologies of $p$ -group covers

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**Résumé :** Let  $k$  be an algebraically closed field of characteristic  $p > 0$ , and let  $G$  be a finite  $p$ -group. The results of Harbater, Katz and Gabber associate to every action of  $G$  on  $k[[t]]$  a  $G$ -cover of the projective line ramified only over  $\infty$ . During this talk we will present a new way of computing cohomologies of HKG-covers. We apply this result to the classical problem of determining the equivariant structure of cohomologies of a curve with an action of a  $p$ -group. As an example, we compute the de Rham cohomology of Klein four covers.