## Séminaire de théorie des nombres

Le 10 mars 2025 à 14h (Jussieu)

## Duality for Arithmetic p-adic Pro-etale Cohomology of Analytic Spaces

## Exposé de Zhenghui Li (IMJ-PRG)

**Résumé**: Let K be a finite extension of  $\mathbb{Q}_p$ . We prove that the arithmetic p-adic pro-etale cohomology of smooth partially proper spaces over K satisfies a duality, as conjectured by Colmez-Gilles-Niziol. I will begin by providing some motivation for this question. Then I will explain how the cohomology is related to sheaves on the Fargues-Fontaine curve and how to deduce the result from the 'Poincare duality on the Fargues-Fontaine curve'.