

ON GALOIS SECTIONS OF HYPERBOLIC POLYCURVES OVER ARITHMETIC FIELDS

YUICHIRO HOSHI

This talk focuses on the study of Galois sections of hyperbolic polycurves. A Galois section of an algebraic variety over a field is defined to be a continuous section of the natural continuous surjective outer homomorphism from the étale fundamental group of the given variety to the absolute Galois group of the base field. Recall that Grothendieck's section conjecture states that, for a given hyperbolic curve over a number field, an arbitrary Galois section of the curve is geometric, i.e., the image of an arbitrary Galois section of the curve is contained in a decomposition subgroup associated to a closed point of the curve. This talk reports on recent progress on the study of the geometricity of Galois sections of hyperbolic polycurves over arithmetic fields.