

## Rabbits with twisted ears

(Topological) branched coverings of the sphere, modulo a natural ("isotopy") relation, are interesting combinatorial objects; and a result by Thurston explains, at least theoretically, when such a covering is equivalent to a rational map.

I will explain how such coverings can be conveniently encoded in group theory, and how that language can be used to answer a long-standing open problem by Douady and Hubbard, the "Twisted rabbit problem".

I will then discuss visualizations of "matings" of polynomials (the topological branched covering obtained from gluing together two polynomials at infinity) through the same method.

**Prof. Dr. Laurent Bartholdi (Georg-August-Universität Göttingen)**