

Topology of arithmetic hyperbolic manifolds

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In this talk I will present a panorama of instances where arithmetic congruence hyperbolic manifolds (and orbifolds) have a much stronger relation than general hyperbolic manifolds between their geometric invariants (mainly the hyperbolic volume) and their purely topological invariants (genus, betti numbers and some other). The talk consists mostly of material from joint work with Mikołaj Fraczyk [1] and Steffen Kionke [2].

References

- [1] Mikolaj Fraczyk and Jean Raimbault. Betti numbers of shimura curves and arithmetic three-orbifolds, 2018.
- [2] Steffen Kionke and Jean Raimbault. Congruence link complements, 2019. in preparation.