

Departmental Colloquium

Branched covers and $SU(2)$ -representations.

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Abstract: The fundamental group is one of the most powerful invariants to distinguish closed three-manifolds, and the existence of non-trivial homomorphisms $\pi_1(M) \rightarrow SU(2)$ is a great way of measuring the non-triviality of a three-manifold M . It is known that if an integer homology 3-sphere is either Seifert fibered or toroidal, then irreducible representations do exist. In contrast, the existence of $SU(2)$ -representations for hyperbolic homology spheres has not been completely established. With this as motivation, I will talk about partial progress made in the case of hyperbolic homology spheres realized as branched covers. This is joint work with Sudipta Ghosh.

Friday, November 8 at 3:00 PM in 636 SEO