

FIBER SELF-COVERING MANIFOLDS OVER TORI

Speaker: Lizhen Qin
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Time: Fri, Oct. 31st, 16:00 - 17:00

Venue: Room 102, SCMS

Abstract:

A manifold is called self-covering if it can be identified with a nontrivial cover of itself, where the identification may be a homeomorphism, a homotopy equivalence, or another type of map. Manifolds of this class include the circle as the simplest case and, more generally, the n -dimensional torus and its products with any manifold. We consider the question: Is every closed self-covering manifold with an abelian fundamental group necessarily a fiber bundle over a torus? Moreover, does the self-covering map of such a manifold arise directly from a self-covering map of the torus? This talk will present our current findings on this question, which is a joint work with Yang Su (苏阳) and Botong Wang (王博潼).