Boğaziçi
MATH COLLOQUIUM

# Liftable homeomorphisms of finite abelian $p$-group regular branched covers over orientable surfaces


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**Abstract:** In 2017, Ghaswala and Winarski classified finite cyclic regular branched coverings of the 2-sphere, where every homeomorphism of the base (preserving the branch locus) lifts to a homeomorphism of the covering surface, answering a question of Birman and Hilden.

In 2020, Atalan, Medetoğulları, and Ozan extended this result to finite rank two coverings over the 2-sphere. In 2022, Chen extended these results to all finite abelian groups over the two-sphere. Finally, Akız and Ozan proved the analogous result for any closed orientable surface.

After introducing the main objects, we will state the results and talk about the idea of the proof. If time permits, we will also present some applications to automorphisms of Riemann surfaces and equivariant Picard groups of Moduli spaces of Riemann surfaces, following the work of Kordek on the subject.


**Date** : Wednesday, December 2, 2026
**Time**: 13:30
**Place**: TB 130, Boğaziçi University