

LIFTING DERIVED EQUIVALENCES OF ABELIAN SURFACES TO GENERALIZED KUMMER VARIETIES

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Time:Tue., Dec. 30th, 14:00-15:00

Venue:Room 102, SCMS

Abstract: In this talk, we study the \$G\$-autoequivalences of the derived category \$D^b_G(A)\$ of \$G\$-equivariant objects for an abelian variety \$A\$ with \$G\$ being a finite subgroup of \$\mathrm{Pic}^0(A)\$. We provide a result analogue to Orlov's short exact sequence for derived equivalences of abelian varieties. It can be generalized to the derived equivalences for a same \$G\$ in general. Furthermore, we find derived equivalences of generalized Kummer varieties by lifting derived equivalences of abelian surfaces using the \$G\$-equivariant version of Orlov's short exact sequence and some "splitting" propositions. The talk is based on the paper https://arxiv.org/abs/2507.11358.

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