

Trigonal curves on abelian varieties

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It is well known that hyperelliptic curves on abelian varieties are rigid up to translation. I will prove that trigonal curves on abelian varieties of dimension at least 4 are rigid up to translation. This implies that the relative irregularity of a non-isotrivial fibered surface whose general fiber is trigonal is at most 3. In particular, Xiao's conjecture on the relative irregularity of fibered surfaces holds for trigonal fibrations.

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