

# On The Characteristic Polynomial of Frobenius of Supersingular Abelian Varieties Of Dimension up to 7 over Finite Fields

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In this article, we derive the list of the characteristic polynomials of the Frobenius endomorphism of simple supersingular abelian varieties of dimension  $1, \sim 2, \sim 3, \sim 4, \sim 5, \sim 6, \sim 7$  over  $\mathbb{F}_q$  where  $q=p^n$ ,  $n$  odd.

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