

1154-11-1500 **Edgar Costa*** (edgarc@mit.edu). *Computing central endomorphisms of an abelian variety via reductions modulo p .*

We show that the center of the endomorphism ring of an abelian variety defined over a number field can be recovered from an appropriate intersection of the fields obtained from its Frobenius endomorphisms, under the Mumford-Tate conjecture. We then apply this result to exhibit a practical algorithm to compute this center. Jointly work with Davide Lombardo and John Voight. (Received September 15, 2019)