

1135-14-2317 **James Phillips*** (jp5ay@virginia.edu). *Good reduction of covers of elliptic curves.*

Given a branched cover of curves defined over a mixed-characteristic discretely valued field, one asks whether this cover has good reduction to characteristic p . This arises from a question concerning tame fundamental groups: we know that one has a surjection from the tame fundamental group of a curve to that of its reduction, and finding the kernel of this map amounts to determining which covers have good reduction. We show that we indeed have good reduction in the case of a cover of an elliptic curve defined over a sufficiently small field and branched over a single point whose Galois group has a cyclic Sylow p -subgroup. (Received September 25, 2017)