

BOSTON UNIVERSITY NUMBER THEORY SEMINAR

# Torsion Subgroups of Elliptic Curves over Function Fields

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Monday, December 11 at 4:15 pm  
111 Cummington Mall, MCS B21  
Tea and cookies in MCS 144 at 4:00 pm

**Abstract:** Let  $K = \mathbb{F}_q(T)$  be a function field over a finite field of characteristic  $p$ , and  $E/K$  be an elliptic curve. It is known that  $E(K)$  is a finitely generated abelian group, and that for a given  $p$ , there is a finite, effectively calculable, list of possible torsion subgroups which can appear. In this talk, we show the complete list of possible full torsion subgroups which can appear, and appear infinitely often, for a given  $p$ . We will also discuss work in progress for function fields of higher genus.