

---

**REBECCA DELAND**, University of Colorado, Boulder  
*Limiting Density of Elliptic Divisibility Sequences*

Let  $E/\mathbb{Q}$  be an elliptic curve and  $P$  be a rational point of infinite order. If we write the points  $[n]P = \left(\frac{A_n}{D_n^2}, \frac{B_n}{D_n^3}\right)$ , the  $D_n$ 's form an elliptic divisibility sequence. In this talk, we will explore the residue classes of elliptic divisibility sequences modulo  $p^\lambda$  for  $\lambda \geq 1$ . We will then discuss how we can use elliptic curves over local fields to gain information about the residue classes as  $\lambda \rightarrow \infty$ .