

**Speaker:** Marie Nicholson

**Title:** Computable Categoricity, Linear Orders and Permitting

**Abstract:** Remmel showed that a computable linear order  $L$  is computably categorical if and only if the order type of  $L$  has only a finite number of successivities. As part of the proof, Remmel assumes that  $L$  has infinitely many successivities and constructs another computable linear order  $R$ , which is not computably isomorphic to  $L$ , and a  $\Delta_2^0$ -isomorphism  $f$  such that  $f : L \rightarrow R$  is an isomorphism. Hence showing that  $L$  is not computably categorical. In this talk I will discuss the conditions under which we can use permitting arguments to construct  $f$  below certain types of  $\Delta_2^0$  degrees.