Speaker: Peter Cholak

Title: Encodable by thin sets

Abstract: Let c be a coloring of n-tuples of ω by finitely many colors. For l less than the number of colors, a set T is *l-thin* iff c uses at most l colors to color all the n-tuples from T. The statement such a thin set exists is called $RT^n_{<\infty, l}$.

We say a set S is $RT^n_{<\infty, l}$ -*encodable* iff there is a coloring c as above such that every l-thin set computes S. Wang showed that when l is ``large'' only the computable sets are $RT^n_{<\infty, l}$ -encodable. Dorais, Dzhafarov, Hirst, Mileti, and Shafer showed that the hyperarithmetic sets are $RT^n_{<\infty, l}$ -encodable for ``small'' l. Cholak and Patey showed that the arithmetic sets are $RT^n_{<\infty, l}$ -encodable for ``medium'' l. Of course, what is missing here is the exact definition of small, medium, and large. In the talk we will provide ``tight'' definitions, at least, for a ``few'' n. This is joint work with Ludovic Patey.