Title: Computable Ramsey’s Theorem for pairs needs infinitely many $\Pi^0_2$ sets

Abstract:
Igusa will speak on joint work with Henry Towsner. Jockusch showed that for any computable $k$-coloring of pairs of integers, there is an infinite $\Pi^0_2$ homogeneous set. The proof uses a countable collection of $\Pi^0_2$ sets as potential infinite homogeneous sets. In a remark preceding the proof, Jockusch stated without proof that it can be shown that there is no way to prove this result with a finite number of $\Pi^0_2$ sets. Igusa and Towsner gave a proof.