Logic Seminar

ITP and SCH

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Abstract: ITP is a strengthening of the tree property. Just like the tree property characterizes the combinatorial nature of weakly compact cardinals, ITP characterizes it for supercompact cardinals. An old project in set theory is to get these properties at all regular cardinals greater than $\omega_1$. Doing so would require many failures of SCH. We prove that it is consistent to have ITP at $\aleph_{\omega_1}$ together with failure of SCH at $\aleph_2$. This is joint work with J. Cummings, M. Magidor, I. Neeman, S. Unger, and Y. Hayut.