



Speaker: Ludovic Patey
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Thursday, November 19, 2015

3:00 PM

125 Hayes-Healy Hall

Title: Ramsey's theorem of compactness

Abstract:

Ramsey's theorem (RT^n_k) asserts that every k -coloring of the n -tuples of integers admits an infinite monochromatic set. The standard proof of Ramsey's theorem for pairs involves weak König's lemma (WKL). Recently, Liu proved that RT^2_2 does not imply WKL, and therefore that WKL is not needed in the proof of RT^2_2 . Later, Flood introduced a Ramsey-type weak König's lemma which happens to be the exact amount of compactness needed by RT^2_2 . In this talk, we present an extensive analysis of the links between Ramsey-type theorems and various notions of compactness.