Analysis Seminar

MONDAY, October 24, 2016

15:00-16:00 − Room 646 PGH

Speaker: Jason Crann (Carleton University)

Title: Module injectivity of group von Neumann algebras

Abstract: This talk will feature recent results on the injectivity of $VN(G)$ as an operator module over the Fourier algebra $A(G)$ for general locally compact groups G. Contrary to the operator space category, we show that amenability of G is equivalent to injectivity of $VN(G)$. We then show that inner amenability of G is equivalent to relative injectivity of $VN(G)$. This result, among other things, allows us to answer 3 open questions in abstract harmonic analysis. In the bimodule setting, we characterize the (relative) injectivity of $VN(G)$ and apply our results to elucidate the operator amenability of $A_{cb}(G)$ - the cb-multiplier norm closure of $A(G)$.