

Research Statement

Saeed Ghasemi
York University, Toronto

I am a second year PhD student at York University, working on Set Theory under the supervision of Ilijas Farah.

My interest in logic is in Set Theory and Model Theory. During my Masters I was working on extensions of infinitary logics by adding quantifiers based on large cardinals, namely the first weakly compact cardinal. Recently I have been working on some applications of Set Theory to the Theory of C^* -algebras. It has been observed that some C^* -algebras have really nice properties and behave nicely under some Set Theoretic assumptions. The main theorem that I am interested in is to generalize the following theorem by Ilijas Farah to a larger collection of C^* -algebras: “OCA implies that all the automorphisms of the Calkin Algebra are inner.”

I found this Set Theory workshop at Königswinter quite interesting and a good opportunity to learn more about different topics in Set Theory as well as be around a great community of set theorists. I hope I would get the chance to be there.