

My research is primarily in large scale properties of groups, specifically Guoliang Yu's property A and coarse embeddability into Hilbert spaces. A group with these properties satisfy the coarse Baum–Connes conjecture and the Novikov conjecture. I am interested in their obstructions and how they behave under group constructions and extensions.

I am also interested in the Haagerup property, which can be thought of as an equivariant version of coarse embeddability. Specifically I am interested in “how well” a group has the Haagerup property and coarse embeddability. That is the L^p compression of a group. This captures how close the group quasi-isometrically embeds (equivariantly and non-equivariantly) into an L^p space, for any $1 < p < \infty$.