Quasi-isometric embeddings of Ramanujan complexes

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Expander graphs have many fruitful applications in mathematics and computer science due to their distinctive property, namely highly connected but also sparse. In this talk, we will show that distinct primes produce significantly different types of optimal high dimensional expanders. More precisely, we show that if p and q are distinct primes, then the associated Ramanujan complexes do not quasi-isometrically embed into one another.