

Random groups and actions on L^p spaces

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Groups can be investigated by considering how they can act on suitable spaces. For example, the notion of Kazhdan’s property (T), relating to how groups can act on Hilbert spaces, has been used very successfully for many applications over the last fifty years. Work of Zuk, Kotowski-Kotowski shows that certain random groups have this property via considering the eigenvalues of the Laplacian of random graphs. More recently, similar definitions have been used to study actions on other L^p spaces. I will discuss why actions of certain random groups on L^p spaces have fixed points, and applications.

This is joint work with Cornelia Drutu.

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