

Department of Mathematics

The Chinese University of Hong Kong

數學系

香港中文大學

Phone: (852) 3943 7988 • Fax: (852) 2603 5154 • Email: dept@math.cuhk.edu.hk
Room 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

Seminar

Hyperbolicity is not an intrinsic property of knot graphs

Ms. Beibei Liu University of California, Davis

Abstract

The vertices in knot graphs are isotopy classes of knots, and edges of knot graphs often correspond to a local move of the knot such as crossing change, band moves and so on. In the joint work with S. Jabuka and A. Moore, we study different types of knot graphs and prove that they are quasi-isometric to some integral lattice $Z^{\{n\}}$ in $R^{\{n\}}$ for some n. Moreover, the knot graphs we study are also not Gromov hyperbolic. However, one can study the quotient knot graph by using some knot invariants and prove that the quotient graph is quasi-isometric to Z in R, which is \delta-hyperbolic for some constant \delta.

Date: 26 August 2019 (Monday) 19 August 2019 (Monday)

Time: 2:00pm - 3:00pm

Venue: Room 222, Lady Shaw Building,

The Chinese University of Hong Kong, Shatin