



Department of Mathematics
The Chinese University of Hong Kong

數學系
香港中文大學

Phone: (852) 3943 7988 / 3943 7989 • Fax: (852) 2603 5154 • Email: dept@math.cuhk.edu.hk
Rm. 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

Seminar

Intrinsic Chirality of Graphs in 3-manifolds

Professor Erica Flapan
Department of Mathematics
Pomona College

Abstract: We say that an embedding Γ of a graph γ in a 3-manifold M is *achiral* if there is an orientation reversing homeomorphism of (M, Γ) . If a graph γ has no such embedding in M we say γ is *intrinsically chiral* in M .

We prove that for any closed, connected, orientable, irreducible 3-manifold M , there is an integer n_M such that every 3-connected graph γ with $\text{genus}(\gamma) > n_M$ and no involution is intrinsically chiral in M . On the other hand, we prove that every graph has achiral embeddings in infinitely many closed, connected, orientable, irreducible 3-manifolds.

Date: 29 July 2016 (Friday)
Venue: Rm 222, Lady Shaw Building,
The Chinese University of Hong Kong, Shatin
Time: 4:00 p.m. – 5:00 p.m.

All are Welcome!