



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 (Math. Dept.)
Room 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

Seminar

*A new perspective on modular links and
upper hyperbolic volume bounds*

*Ms. On Yu HUI
Monash University*

Abstract

In the 1970s, Williams developed an algorithm that has been used to construct and study modular links in the Lorenz template. We introduce the bunch algorithm to provide more insights into the geometry of modular links and Lorenz links. Using the machinery developed for the bunch algorithm, we provide the first upper volume bound that is independent of word exponents and quadratic in the braid index of the Lorenz link component for all modular link complements. We find families of modular knot complements with upper volume bounds that are linear in the braid index. A classification of modular link complements based on the relative magnitudes of word exponents is also presented. This is joint work with José Andrés Rodríguez-Migueles (<https://arxiv.org/abs/2308.12847>).

Date: 19 January 2024 (Friday)
Time: 11:00am – 12:00am (Hong Kong Time)
Venue: Room 222, LSB

All are Welcome