For Favour of Posting

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

Universal Knot Invariants

Miss Danica Kosanovic
Max-Planck Institute for Mathematics

Abstract

The appearance of the Vassiliev-Goussarov theory of nite type invariants in the '90s gave a new, conceptual approach to the relationship between knots and Lie algebras. Similarly as with the quantum invariants, one can draw inspiration from physics to obtain the algebra of diagrams which can serve as the universal target for knot invariants. More precisely, any rational invariant of nite type can be factored as the composition of a certain universal map, called the Kontsevich integral, from the space of knots to the space of diagrams, and a weight system on the diagrams. However, many questions remain unanswered, including the problem of finding a universal integer-valued invariant. In this talk, I will review the basics of the finite-type theory, mention the Habiro clasper surgery and give hints on some recent progress, without assuming any background.

Date: 6 December 2017 (Wednesday)
Time: 2:00pm – 4:00pm
Venue: Room 222, Lady Shaw Building,
The Chinese University of Hong Kong, Shatin

All are Welcome