

How to Compute with (Locally) Gentle Algebras by Doodling

Friday, July 25, 2025 12:00 PM (30 minutes)

(Locally) gentle algebras are a broad family of algebras whose representation theory is well understood (and computationally effective!), which makes them an excellent testing ground for new conjectures. In this expository talk we'll discuss the “geometric model” for (locally) gentle algebras, due to Haiden–Katzarkov–Kontsevich, Oppen–Plamondon–Schroll, and Lekili–Polishchuk, and show how you can compute everything about the derived category by drawing curves on surfaces and counting intersection points. Given time, we'll discuss applications of this machinery to the speaker's thesis work, relating the HOMFLY skein relation in a surface to the Hall algebra of that surface's Fukaya category.

Motivation for Participation

Application for a talk

E-Mail

Special requests and comments

Academic Status

Financial Support

Institution (University)

Topic of your talk

Comments and Suggestions on the Community Agreement

Nationality

Country of Institution

Preferred Name

Gender

Preferred Pronouns

Author: GROSSACK, Chris (UC Riverside)

Presenter: GROSSACK, Chris (UC Riverside)