

September 21, 2012
9:30 a.m. - 5:30 p.m.
Bissinger Room
4th floor, Howe Center
Stevens Institute of Technology
Hoboken, NJ

September 22, 2012
9:00 a.m. - 5:45 p.m.
Room C002
Hunter North Building
Hunter College (CUNY)
New York, NY

Url: <http://www.stevens.edu/algebraic/GTH/>

Group Theory on the Hudson

Sarah Rees

(Newcastle University, UK)

“When Artin groups are sufficiently large”

Abstract:

I'll talk about recent work with Derek Holt, some also with Laura Ciobanu, and report on progress made on my work with Holt on Artin groups since I spoke in the Stevens webinar just under a year ago.

For a family of Artin groups that I shall call the “*sufficiently large*” groups, which includes all groups of large type, triangle-free groups and RAAGs, we

- characterise the geodesic and shortlex minimal representatives of elements,
- have effective procedures to rewrite words to these forms, hence solve the word problem in these groups, which we prove shortlex automatic,
- we can apply our knowledge of geodesics to derive the rapid decay property for many of these groups, including all of extra-large type,
- for most of those groups we now deduce that the Baum-Connes conjecture holds.

After some general background, I'll work through the list above.

