

Rewriting in Artin groups and their relations, Sarah Rees, University of Newcastle, UK

The family of Artin groups contains a variety of groups with apparently quite different properties. But despite that some of the techniques developed to deal with particular subfamilies reveal a lot of commonality in their approaches.

I'll discuss what is known about rewrite systems for Artin groups, surveying work of a number of different authors for various types, from Artin and Garside to very recent work of Dehornoy and others. In particular I'll examine Dehornoy's search for a common approach.

I'll finish with a discussion of interval groups associated with Coxeter groups of type D_n . Joint work with Baumeister and Neaime, and now Holt, derives presentations for these groups as quotients of various Artin groups, and we hope these may lead to effective rewriting techniques for them.