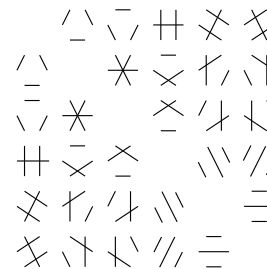


Mathematics Seminar



Rocky Mountain Algebraic Combinatorics Seminar

Isomorphism testing of groups of most orders

James Wilson
Colorado State University

Group isomorphism takes time $n^{O(\log n)}$ in general. We prove that for a dense set of orders n , group isomorphism is decided in time:

1. $n^{O(\log \log n)}$ time in general groups of order n .
2. $(\log n)^{O((\log \log n)^2)}$ time for solvable groups of order n .
3. $(\log n)^{O((\log \log n))}$ time for nilpotent groups of order n .

2 and 3 depend on factoring n but do not require discrete logs.

This is joint work with Heiko Dietrich (Monash University)

Online via Zoom

<https://zoom.us/j/99764124299?pwd=YXZXdkcvQjB2RnFHwTjUXRyUTFOUT09>

4 pm, Friday, July 24 2020

Get together online starting at 3:30 pm

This is a joint Denver U / UC Boulder / UC Denver / U of Wyoming / CSU seminar that meets biweekly.

Anyone interested is welcome to join us at a local restaurant for dinner after the talks.



Department of Mathematics
Fort Collins, Colorado 80523