"Group Theory International" Online Seminar

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"Logspace and compressed word computation in finitely generated nilpotent groups"

Thursday, February 5, noon (New York Time)

Abstract:
We discuss the computation of normal forms, the membership problem, the conjugacy problem, and computation of presentations for subgroups in nilpotent groups. We show that these problems are solvable using only logarithmic space and, simultaneously, in quasilinear time. We also show that compressed-word versions of these problems, in which each input word is provided as a straight-line program, are solvable in polynomial time.

Next presentation: Feb 19, Funda Gul *(Stevens Institute of Technology)*

Algebraic Cryptography Center