"Group Theory International" Online Seminar

Laura Ciobanu

(Université de Neuchâtel)

"Conjugacy growth and hyperbolicity"

Thursday, December 3, noon (New York Time)

The topic of the talk is conjugacy growth in groups, as well as conjugacy growth series and conjugacy related languages. In particular, I will discuss the positive answer to a conjecture of I.Rivin, which states that the conjugacy growth series of a hyperbolic group is rational if and only if the group is virtually cyclic.

I will present the proof that the conjugacy growth series of a non-elementary hyperbolic group is transcendental, result that can then be used to show a formal language version of Rivin's conjecture for any finitely generated acylindrically hyperbolic group (joint with Antolín).

If time allows, I will also show why the conjugacy growth series of a virtually cyclic group is rational (joint with Hermiller, Holt and Rees).

Next presentation: Dec 10, Dominik Gruber *(Université de Neuchâtel)*

Algebraic Cryptography Center