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Laura Ciobanu* (laura.ciobanu@unine.ch), Rue Emile-Argand 11, 2000 Neuchâtel, Switzerland, and **Yago Antolín**, **Susan Hermiller**, **Derek Holt** and **Sarah Rees**. *On the rationality of the conjugacy growth series in hyperbolic groups*. Preliminary report.

In any group G with finite generating set X consider a set L of conjugacy normal forms. That is, L contains exactly one element w out of each conjugacy class, chosen to be shortest among all the words, over X , that represent group elements in the same conjugacy class as w .

Rivin conjectured that the growth series of L for a hyperbolic group is rational if and only if the group is virtually cyclic. We will present the proof confirming this conjecture. The direction involving virtually cyclic groups is joint work with Susan Hermiller, Derek Holt and Sarah Rees, and the other direction is joint work with Yago Antolín. (Received September 11, 2014)