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Laura Ciobanu (laura.ciobanu@unine.ch), Mathematics Department, University of Neuchâtel, Rue Emile-Argand 11, CH-2000 Neuchâtel, Switzerland, Susan Hermiller* (smh@math.unl.edu), Department of Mathematics, University of Nebraska, Lincoln, NE 68588-0130, Derek Holt (d.f.holt@warwick.ac.uk), Mathematics Institute, Zeeman Building, University of Warwick, Coventry, CV4 7AL, United Kingdom, and Sarah Rees (sarah.rees@ncl.ac.uk), Department of Mathematics, University of Newcastle, Newcastle, NE1 7RU, United Kingdom. Conjugacy languages in groups.

Regularity of languages derived from conjugacy classes in a finitely generated group G implies rationality of the corresponding growth series. In this talk I will discuss regularity for languages of conjugacy geodesics and geodesic normal forms for conjugacy classes and elements of minimal length up to conjugacy, for a variety of examples including word hyperbolic, virtually abelian, Artin, and Garside groups. (Received September 14, 2014)