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Nicole Lemire*, Department of Mathematics, University of Western Ontario, London, Ontario
N6A 5B7, Canada. *Equivariant Birational Properties of Algebraic Tori*. Preliminary report.

We examine the equivariant birational linearisation problem for algebraic tori equipped with a finite group action. We also study bounds on *degree of linearisability*, a measure of the obstruction for such an algebraic torus to be linearisable. We connect these problems to earlier work with Vladimir Popov and Zinovy Reichstein on the classification of the simple algebraic groups which are Cayley and on determining bounds on the Cayley degree of an algebraic group, a measure of the obstruction for an algebraic group to be Cayley. (Received September 21, 2011)