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Hans U. Boden* (boden@mcmaster.ca), Department of Mathematics and Statistics, McMaster University, 1280 Main St. W., Hamilton, Ontario L9H 4C3, Canada, and **Stefan Friedl**.

Metabelian $SL(n, \mathbb{C})$ representations of knot groups.

In this talk, which is a report on joint work with Stefan Friedl, I will explain why, for n prime (or more generally n a prime power), every irreducible metabelian $SL(n, \mathbb{C})$ representation of a knot group factors through a finite group. It is a consequence that every such representation is conjugate to an $SU(n)$ representation and that there are only finitely many (up to conjugation). I will present a simple formula for this number in terms of the Alexander polynomial of the knot. These results are the natural $n \geq 2$ generalization of results of Nagasato on metabelian $SL(2, \mathbb{C})$ representations of knot groups. (Received September 15, 2008)