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**Monica Nevins\*** ([mnevins@uottawa.ca](mailto:mnevins@uottawa.ca)), Department of Mathematics and Statistics, University of Ottawa, Ottawa, ON K1N 6N5, Canada. *On nilpotent orbits of  $SL_n$  and  $Sp_{2n}$  over a  $p$ -adic field.*

In 2002, DeBacker gave a parametrization of the arithmetic nilpotent adjoint orbits of a reductive linear algebraic group defined over a  $p$ -adic field in terms of equivalence classes of objects in the associated Bruhat-Tits building. In this talk, we relate this parametrization to more classical parametrizations of orbits for  $SL_n$  and  $Sp_{2n}$ , and explore the extension of DeBacker's parametrization to fields of small residual characteristic. (Received August 03, 2007)