1135-53-51 **Scott Van Thuong*** (sthuong@pittstate.edu), Pittsburg State University, Department of Mathematics, 1701 S Broadway, Pittsburg, KS 66762. *Metrics on 4-dimensional unimodular Lie groups.*

We classify left invariant metrics on the 4-dimensional, simply connected, unimodular Lie groups up to automorphism. When the corresponding Lie algebra is of type (R), this is equivalent to classifying the left invariant metrics up to isometry, but in general the classification up to automorphism is finer than that up to isometry. In the abelian case, all left invariant metrics are isometric. In the nilpotent case, the space of metrics can have dimension 1 or 3. In the solvable case, the dimension can be 2, 4, or 5. There are two non-solvable 4-dimensional unimodular groups, and the space of metrics has dimension 6 in both of these cases. (Received July 07, 2017)