1042-20-45   **Sean Cleary*** (`cleary@sci.ccny.cuny.edu`), Mathematics Department, R8133, The City College of New York, Convent Ave at 138th St, New York, NY 10031, and **Jose Burillo**, Universitat Politecnica de Catalunya, Barcelona, Spain. *Metric properties of braided and higher-dimensional Thompson's groups.*

The braided Thompson's group BV is a torsion-free generalization of Thompson's group V, constructed by Brin and Dehornoy. The higher-dimensional versions of Thompson's group V, denoted nV, constructed by Brin, generalize Thompson's group V from acting on the unit interval to acting on n-dimensional cubes. We give estimates for the word metrics in these groups with respect to their finite generating sets and show the optimality of these estimates. (Received July 31, 2008)