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Lawrence A. D'Antonio* (ldant@ramapo.edu), Ramapo College of New Jersey, Department of Mathematics, Mahwah, NJ 07430. *A Reader's Guide to the Classification of Quadratic Forms in the Disquisitiones Arithmeticae*. Preliminary report.

Gauss, in his *Disquisitiones Arithmeticae*, develops a rich, but confusing classification of quadratic forms. There are classes, orders, and genera of forms. In this talk we will explain this classification scheme using Gauss's own examples, ending with the statement of the Gauss class number conjectures. (Received September 17, 2012)