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Melanie Matchett Wood* (mwood@math.stanford.edu), Stanford University, Department of Mathematics, Building 380, Sloan Hall, Stanford, CA 94305. *Moduli Spaces for Rings and Ideals*.

Number theorists study rings of algebraic integers and ideal classes in those rings. One approach to studying these rings and ideal classes is through geometric parametrizations. The first case is the classical correspondence between binary quadratic forms and ideal classes in quadratic rings. We will see how this classical correspondence can be viewed geometrically as an isomorphism of moduli spaces, and how it is just the first of many such explicit moduli spaces for number theoretic objects. (Received August 02, 2010)