1086-11-787 **Lenny Fukshansky**, **Glenn Henshaw**, **Philip Liao**, **Matthew Prince**, **Xun Sun*** (foxfur_32@hotmail.com) and **Samuel Whitehead**. *On integral and ideal well-rounded lattices.*

We give a characterization of ideal well-rounded lattices in the plane and show that a positive proportion of real and imaginary quadratic number fields contains ideals giving rise to well-rounded lattices. This extends some previous results of L. Fukshansky and K. Petersen. Our main tool is a parameterization of similarity classes of integral well-rounded lattices in the plane by solutions of certain Pell-type Diophantine equations. (Received September 12, 2012)