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Lokendra P. Paudel* (lokendra@nmsu.edu), New Mexico State University, Department of Mathematical Sciences, Las Cruces, NM 88003. *Weak Approximation for Valuation Overrings of Affine Domains.*

The group of divisibility of an integral domain is the multiplicative group of nonzero principal fractional ideals of the domain. The goal of this presentation is to describe the lattice-ordered groups (l -groups) that occur as a group of divisibility of a Bézout overring of an affine domain $D = k[x_1, x_2, \dots, x_n]$. We focus especially on the finitely generated l -groups that arise as the group of divisibility of a finite intersection of valuation overrings of D . (Received August 30, 2012)