1135-11-675 **Emerald Tatiana Stacy*** (`stacye@math.oregonstate.edu`), 715 Grouse Pl, Philomath, OR 97370. *On Small Heights of Abelian Totally p-adic Numbers.*

The height of an algebraic number α is a measure of how arithmetically complicated α is. We say an algebraic number is totally real (or totally p-adic) if its minimal polynomial splits completely over $\mathbb{R}$ (or $\mathbb{Q}_p$). Further, α is abelian if $\mathbb{Q}(\alpha)$ is Galois with abelian Galois group over $\mathbb{Q}$. Let $d \geq$ and p be a prime. Then there exists a smallest nontrivial height of an abelian totally p-adic algebraic number of degree d, which we will call $\tau_{d,p}^{ab}$. This talk will include the results describing aspects of the set $\{\tau_{d,p}^{ab} : p \text{ is a prime}\}$, and why it can be determined by a congruence condition on p. (Received September 12, 2017)