1067-13-1812 **Wenbo Niu*** (wniu2@uic.edu), 2817 S. Union Ave. Apt.1R, Chicago, IL 60616. *Asymptotic Regularity of Powers of Ideal Sheaves.*

Let $\mathcal{I}$ be an ideal sheaf on P^n. We bound the asymptotic regularity of powers of $\mathcal{I}$ as $ps-3 \leq \text{reg}\mathcal{I}^p \leq ps+e$, where e is a constant and s is the s-invariant of $\mathcal{I}$. We also give the same upper bound for the asymptotic regularity of symbolic powers of $\mathcal{I}$ under some conditions. (Received September 21, 2010)