

Statistics 330b/600b, spring 2010

Homework # 6

Due: Thursday 25 February

Please attempt at least the starred problems.

- *[1] Let $X_1, X_2, \dots$, be independent random variables with $\mathbb{P}X_i = 0$ and $\mathbb{P}X_i^6 \leq C$ for each i , where C is a finite constant. Show that $\mathbb{P}(X_1 + \dots + X_n)^6 \leq C_0 n^3$ for each n , where C_0 is a constant that depends only on C .
- *[2] UGMTP Problem 4.21. [You proved a stronger version of UGMTP Problem 4.1 on Homework 3. There is no need resolve the Problem.]
- [3] UGMTP Problem 4.23.