1092-62-75 Manfred Denker (denker@math.psu.edu) and Lucia Tabacu* (1mt203@psu.edu). An almost sure central limit theorem for rank statistics.

I will discuss an almost sure central limit theorem for linear rank statistics $T_n(J)$, where J is a bounded C²-score function:

$$\lim_{N \to \infty} \frac{1}{\log N} \sum_{n=1}^{N} \frac{1}{n} \mathbb{I}(T_n(J) \le t) = \frac{1}{\sigma \sqrt{2\pi}} \int_{-\infty}^t e^{-x^2/2\sigma^2} dx \text{ a.s.},$$

for some variance $\sigma^2 > 0$. The essential assumption is that the random variables are structured as a sequence of independent random vectors. This work is part of my dissertation. (Received July 29, 2013)