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1005-60-58 **Uwe P Einmahl*** (ueinmahl@vub.ac.be), Departement Wiskunde, Vrije Universiteit Brussel,
Pleinlaan 2, B-1050 Brussels, Belgium. *General results on two-sided LIL behavior.*

We first present a recent generalization of the Hartman-Wintner LIL: Let $\{X, X_n; n \geq 1\}$ be a sequence of i.i.d. mean zero random variables, and let $S_n = \sum_{i=1}^n X_i$, $n \geq 1$. We establish necessary and sufficient conditions for having with probability one, $0 < \limsup_{n \rightarrow \infty} |S_n|/\sqrt{nh(n)} < \infty$, where h is from a suitable subclass of the positive, non-decreasing slowly varying functions. Specializing our result to $h(n) = (\log \log n)^p$, where $p > 1$ and to $h(n) = (\log n)^r, r > 0$, we obtain analogues of the Hartman-Wintner LIL in the infinite variance case. Our proof is based on a general result dealing with LIL behavior of the normalized sums $\{S_n/c_n : n \geq 1\}$, where c_n is a sufficiently regular normalizing sequence. We then discuss the analogous problem dealing with extensions of Strassen's functional LIL. (This is mainly joint work with Deli Li, Lakehead University, Canada) (Received January 24, 2005)