

**LARGE DEVIATIONS AND LAW OF THE ITERATED LOGARITHM FOR  
GENERALIZED DOMAINS OF ATTRACTION**

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*Abstract:* Suppose  $X, X_1, X_2, \dots$  are i.i.d. random vectors,  $S_n = \sum_{i=1}^n X_i$  and  $A_n$  are linear operators such that  $A_n S_n$  converges in law to some full random vector  $Y$ . Then we say that  $X$  belongs to the *strict generalized domain of attraction* of  $Y$ . We show that if  $Y$  has no normal component, then  $(A_n S_n)$  satisfies a large deviation principle. This large deviation result is used to show that a law of the iterated logarithm for  $(A_n S_n)$  holds, which gives the precise growth behavior of the sample paths of the random walk  $(S_n)$ .

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