

Talagrand, M.

Sharper bounds for Gaussian and empirical processes. (English) Zbl 0798.60051
Ann. Probab. 22, No. 1, 28-76 (1994).

Let (Ω, Σ, P) be a probability space, f a real-valued random variable on Ω , and X_1, \dots, X_n i.i.d. Ω -valued random variables on Ω with common law P . For certain classes F of random variables f , near optimal bounds are given for the probabilities $P(\sup_{f \in F} |\sum_{i \leq n} f(X_i) - nE(f)| \geq M\sqrt{n})$. The basic idea of the author's approach is borrowed from a previous paper of him [*Ann. Inst. Henri Poincaré, Probab. Stat.* 24, No. 2, 307-315 (1988; [Zbl 0641.60044](#))]. An impressive machinery is set up, which is important in its own right.

Reviewer: [M.Iosifescu \(București\)](#)

MSC:

[60G50](#) Sums of independent random variables; random walks
[60E99](#) Distribution theory
[62E99](#) Statistical distribution theory

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Keywords:

[near optimal bounds](#)

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