PROBABILITY AND MATHEMATICAL STATISTICS Vol. 18, Fasc. 1 (1980), pp. 83–100

ON THE SUPREMUM FROM GAUSSIAN PROCESSES OVER INFINITE HORIZON

Krzysztof Dębicki Zbigniew Michna Tomasz Rolski

Abstract: In the paper we study the asymptotic of the tail of distribution function P(A(X,c) > x) for $x \to \infty$, where A(X,c) is the supremum of X(t) - ct over $[0,\infty)$. In particular, X(t) is the fractional Brownian motion, a nonlinearly scaled Brownian motion or some integrated stationary Gaussian processes. For the fractional Brownian motion we give a stronger result than a recent one of Duffield and O'Connell [5].

2000 AMS Mathematics Subject Classification: Primary: -; Secondary: -; Key words and phrases: -

THE FULL TEXT IS AVAILABLE HERE