

**Goldman, André****La mesure de Hausdorff des trajectoires du mouvement brownien à plusieurs paramètres (Hausdorff measure for the range of a time- multidimensional Brownian motion process).**(French) [Zbl 0584.60063](#)

C. R. Acad. Sci., Paris, Sér. I 300, 643-645 (1985).

The function  $\phi(x) = x^{2p} \ln \ln x^{-1}$  is shown to be an exact Hausdorff measure function for the range of a transient Lévy Brownian motion process with multidimensional time. This result settles a question by P. Lévy [Rend. Mat. Appl., V. Ser. 22, 24-101 (1963; [Zbl 0121.191](#)) and Research papers Statist., Festschr. J. Neyman, 189-223 (1966)]. The main tool is a projection lemma (of independent interest) based on McKean's decomposition of Brownian motion.

**MSC:**[60G60](#) Random fields[60J65](#) Brownian motionCited in **1** Document**Keywords:**[Hausdorff measure](#); [projection lemma](#); [decomposition of Brownian motion](#)