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References

Craig: On the frequency function of xy **Craig-1936**

Cecil C. Craig. "On the frequency function of xy". In: *The Annals of Mathematical Statistics* 7.1 (Mar. 1936), pp. 1–15. DOI: 10.1214/aoms/1177732541.

Uhlenbeck et al.: On the Theory of the Brownian Motion **Uhlenbeck-Ornstein-1930**

G. E. Uhlenbeck and L. S. Ornstein. "On the Theory of the Brownian Motion". In: *Physical Review* 36.5 (Sept. 1930), pp. 823–841. DOI: 10.1103/physrev.36.823.

Abstract: With a method first indicated by Ornstein the mean values of all the powers of the velocity u and the displacement s of a free particle in Brownian motion are calculated. It is shown that $u - u_0 \exp(-\beta t)$ and $s - u_0\beta[1 - \exp(-\beta t)]$ where u_0 is the initial velocity and β the friction coefficient divided by the mass of the particle, follow the normal Gaussian distribution law. For s this gives the exact frequency distribution corresponding to the exact formula for s^2 of Ornstein and Fürth. Discussion is given of the connection with the Fokker-Planck partial differential equation. By the same method exact expressions are obtained for the square of the deviation of a harmonically bound particle in Brownian motion as a function of the time and the initial deviation. Here the periodic, aperiodic and overdamped cases have to be treated separately. In the last case, when β is much larger than the frequency and for values of $t >> \beta^{-1}$, the formula takes the form of that previously given by Smoluchowski.

Sewall Wright. "The method of path coefficients". In: *The Annals of Mathematical Statistics* 5.3 (Sept. 1934), pp. 161–215. DOI: 10.1214/aoms/1177732676.