1 Normal function

The following function defined on the real line

$$f(x) = \frac{1}{\sqrt{2\pi}\sigma} \exp\Big\{-\frac{(x-\mu)^2}{2\sigma^2}\Big\} \tag{1}$$

is called the probability density function (*pdf*) of a normal distribution with mean μ and variance σ^2. $\cdots$ The equation (1) on page 1 of Section 1 is called standard normal pdf if $\mu = 0$ and $\sigma = 1$.

Billingsley's [1, see Cahpter 5] book was published in New York (See also Kartzas and Shereve [3, Optional]). Harrison and Reiman [2] have a paper in The Annals of Probability.

References

[1] Billingsley, P. (1968) *Convergence of Probability Measures* John Wiley & Sons, New York.

[2] Harrison, J. M. and Reiman, M. I. *The Annals of Probability* **9**, 302–308.

[3] Karatzas, I. and Shereve, S. (1988) *Brownian Motion and Stochastic Calculus* Springer-Verlag, New York.