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ERRATUM TO "GAUSSIAN MEASURE OF LARGE BALLS IN A HILBERT SPACE"

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It has been brought to my attention that the argument used on the third line from the top on page 108 of [**2**] is incorrect. The following correction was suggested by A. de Acosta:

Assume that dim(Support P) ≥ 3 (if not, one has a Gaussian measure on a Hilbert space of dimension at most 2, and elementary arguments give the result). Then, by [**1**, p. 322 or **3**, p. 389], F has a bounded uniformly continuous density.

Let $\rho = 1/2\lambda_1$, $f(t) = e^{\rho t}(1 - F(t))$ $(t \geq 0)$, $\theta(c) = \int_{[0,\infty)} e^{-ct}\,df(t)$.

Note that df has a unit mass at 0. Integration by parts gives

$$\theta(c) = c\psi(c). \tag{1}$$

Since, as shown in the paper, $\psi(c) \sim Kc^{-k/2}$ $(c \to 0)$, where K is a constant, we get from (1) that

$$\theta(c) \sim Kc^{-k/2+1}.$$

By the Tauberian theorem,

$$e^{\rho t}(1 - F(t)) \sim K_1 t^{k/2-1} \qquad (t \to \infty).$$

REFERENCES

1. A. de Acosta, *Quadratic zero-one laws for Gaussian measures and the distribution of quadratic forms*, Proc. Amer. Math. Soc. **54** (1976), 319–325.
2. C.-R. Hwang, *Gaussian measure of large balls in a Hilbert space*, Proc. Amer. Math. Soc. **78** (1980), 107–110.
3. J. Kuelbs and T. Kurtz, *Berry-Esséen estimates in Hilbert space and an application to the law of the iterated logarithm*, Ann. Probab. **2** (1974), 387–407.

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