Bernoulli **2**(1), 1996, 107–108

Amendments and Corrections

'Time-scales for Gaussian approximation and its breakdown under a hierarchy of periodic spatial heterogeneities'

By R.N. Bhattacharya and F. Götze. *Bernoulli* (1995), **1**, 81–123

There is an error in the estimates (4.45) of our paper. Because of the presence of the summand corresponding to $\boldsymbol{n} = \boldsymbol{o}$, the correct estimates are

$$\sup_{x,y\in[0,a)^k} \dot{p}_a(1;\boldsymbol{x},\boldsymbol{y})z \le c'' < \infty,$$

$$\sup_{x,y\in[0,1)^k} \ddot{p}^a(1/a^2;\boldsymbol{x},\boldsymbol{y}) \le c''a^k. \tag{1}$$

The main impact of this is that the time-scale $t \gg a^2$, or $t/a^2 \to \infty$, in Theorems 4.7, 4.9 and 4.10 should be replaced by

$$t \gg a^2 \log a \qquad \left(\text{or } \frac{t}{a^2 \log a} \to \infty\right). \tag{2}$$

To see this, note that the rate of convergence to equilibrium as given in (4.48) and Lemma 4.2 is to be modified, in view of (1) above, to

$$\int_{[0,1)^k} |\ddot{p}_a(t;\boldsymbol{x},\boldsymbol{y}) - 1/\mathrm{d}y \le c'a^k \exp\{-2\pi^2\alpha t\} \qquad (t>0, x\in[0,1)^k). \tag{3}$$

Equivalently, in Remark 4.1 a factor of a^k shoud be inserted in the right-hand side of the inequality, i.e.,

$$\int_{[0,a)^k} |\dot{p}_a(t;\boldsymbol{x},\boldsymbol{y}) - a^{-k}/\mathrm{d}y \le c'a^k \exp\{-2\pi^2\alpha t/a^2\} \qquad (t>0, x\in[0,a)^k). \tag{4}$$

As a fairly immediate consequence of the modified estimate (3), one needs to insert a factor of a^k in the right-hand sides of inequalities (4.50)–(4.52) of Corollary 4.4. The remaining estimates (4.53)–(4.55) of Corollary 4.4 remain valid. To see this, use the obvious estimate

$$\| \ddot{T}_s f - \bar{f} \|_\infty \le 2 \| f \|_\infty \qquad \text{for } 0 \le s \le c \log a, \tag{5}$$

for an appropriate large constant c (not depending on a). For $s > c > \log a$, use the

modified version of (4.50), namely,

$$\| \tilde{T}sf - \tilde{f} \|_\infty \leq c_1 \| f \|_\infty a^k \exp\{-2\pi^2 \alpha t\}. \tag{6}$$

With these modified estimates, the proofs of Theorems 4.7, 4.9 and 4.10 carry over under the new time-scale (2).

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'Branching processes as Population Dynamics'

By P. Jagers. *Bernoulli* (1995), **1**, 191–200.

The formula on line 13, p. 195 of *Bernoulli*, **1**, and the preceding sentence should read: The probability of an r-individual having a mother with type $\in \mathrm{d}s$, who gave birth to that individual u time units ago, is

$$\pi(\mathrm{d}s)\mathrm{e}^{-\alpha u}\mu(s, \mathrm{d}r \times \mathrm{d}u)/\pi(\mathrm{d}r).$$

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