COMPTES RENDUS

MATHEMATIQUE

Analyse mathématique

Erratum to: "Exact and asymptotic inverse of the Toeplitz matrix with polynomial singular symbol" [C. R. Acad. Sci. Paris, Ser. I 335 (8) (2002) 705–710] ☆

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The errors to correct are the following:

(i) page 708, line 10 from bottom of the page, the formula should read:

$$\widetilde{G}_p(x) = \int_0^x \widetilde{G}_{p-1}(t)\,dt + (2p-1)\left(\int_{1-x}^1 \widetilde{G}_{p-1}(t)(t+x-1)\,dt + \int_0^x \widetilde{G}_{p-1}(t)(t-x)\,dt\right).$$

(ii) Page 709, line 4 from the top of the page, the formula should read:

$$G_p(x,y) = \int_0^x \widetilde{G}_{p-1}(x-t)\int_0^t t'\widetilde{G}_{p-1}(y-t')\,dt\,dt' + \int_0^x \widetilde{G}_{p-1}(x-t)t\int_t^y \widetilde{G}_{p-1}(y-t')\,dt\,dt'$$

$$- (2p-1)\left(\int_{1-x}^1 \widetilde{G}_{p-1}(t)(t+x-1)\,dt + \int_0^x \widetilde{G}_{p-1}(t)(x-t)\,dt\right)$$

$$\times \left(\int_{1-y}^1 \widetilde{G}_{p-1}(t)(t+y-1)\,dt + \int_0^y \widetilde{G}_{p-1}(t)(y-t)\,dt\right)$$

$$- \left(\int_0^x \widetilde{G}_{p-1}(t+1-x)t\int_t^y \widetilde{G}_{p-1}(t'+1-y)\,dt\,dt' + \int_0^x \widetilde{G}_{p-1}(t+1-x)\right.$$

$$\left. \times \int_0^t \widetilde{G}_{p-1}(t'+1-y)t'\,dt\,dt'\right).$$

(iii) Finally, the most important correction, page 709, lines 14 and 15 from the bottom of the page, Theorem 6:

Theorem 1 (Main Theorem). *If $f_1 \in C^1(\mathbb{T})$ and $f_1' \in A(\mathbb{T})$ we have*:

$$(T_{N,|1-\chi|^{2p}f_1})^{-1}_{[Nx]+1,[Ny]+1} = \frac{2}{\sigma^2}N^{2p-1}G_p(x,y) + \mathrm{o}(N^{2p-1}),$$

where $2/\sigma^2 = 1/f_1(1)$.

The changes are effectively minor (errors of sign, and errors of expression); the formulae are hardly modified, they stay almost the same.