ACTA ARITHMETICA
LXXXV.1 (1998)

Errata to "Average orders of multiplicative arithmetical functions of integer matrices"

(Acta Arith. 66 (1994), 45–62)

by

G. Bhowmik and O. Ramaré (Lille)

Here is a list of corrected versions of some formulas of the paper:

(2.13) $$\phi_r = \mu * \nu^r$$

where ϕ_r is the r-Euler ϕ function.

(3.20) $$D_S(\phi_2; s_1, s_2) = \zeta(s_2-2)\zeta(s_1-4) \times \prod_p (1 + (p - p^2 - p^3)p^{-s_1} - p^{-s_2} + p^{4-s_1-s_2}).$$

(3.21) $$\sum_{\det S \le x} \phi_2(S) \sim Ax^3, \quad A \text{ constant} > 0.$$

(4.8) $$\begin{aligned}\tau(F_3) &= (f_1+1)(f_3+1)\frac{p^{2f_1+f_2+1}-p^{2f_1}}{p-1} \\ &+ 2(f_1+1)\frac{p^{2f_1+f_2+1}-p^{2f_1}}{(p-1)^2} - 2(f_1+1)(f_2+1)\frac{p^{2f_1}}{p-1} \\ &+ \left\{\left(\frac{1}{p}+1\right)(3f_1+2f_2+f_3+2)+\frac{2}{p}\right\} \\ &\times \left\{p\frac{1-p^{2f_1+2}}{(p^2-1)^2} + (f_1+1)\frac{p^{2f_1+1}}{p^2-1}\right\} \\ &- 3(p+1)\left\{\frac{2p^{2f_1+4}-2p^2}{(p^2-1)^3} - (2f_1+3)\frac{p^{2f_1+4}}{(p^2-1)^2}\right. \\ &\left. - \frac{p^2}{(p^2-1)^2} + (f_1+1)(f_1+2)\frac{p^{2f_1+2}}{p^2-1}\right\}.\end{aligned}$$

$$\tau\langle f_1-u,0,1\rangle=\tau\langle f_1-u-1,0,1\rangle+\sigma_1\langle f_1-u-1,1\rangle + 2\sigma_1\langle f_1-u,0\rangle. \tag{4.11}$$

$$D(\tau^{(3)})=\frac{(1+Y-2YZ)(1+pX-p(p+1)XY)}{(1-X)(1-p^2X)^2(1-Y)^2(1-pY)(1-Z)^2} + \frac{(p+3)X+2pX^2}{(1-X)^2(1-p^2X)^2(1-Y)(1-Z)}. \tag{4.17}$$

$$H_1^{(2)}=H_0^{(2)}+K^{(2)}+H_{00}^{(1)}. \tag{4.22}$$

$$H_0^{(2)}=\frac{1+Y}{1-Y}K^{(2)}-\frac{1}{1-Y}K_0^{(1)}+\frac{Y}{1-Y}H_{00}^{(1)}. \tag{4.23}$$

$$D(\tau^{(3)})=\left(\frac{1+Y}{1-Y}\cdot\frac{1}{1-Z}+\frac{Z}{(1-Z)^2}\right)K^{(2)} + \left(\frac{1}{1-Y}\cdot\frac{1}{1-Z}\right)(H_{00}^{(1)}-K_0^{(1)}). \tag{4.24}$$

Département de Mathématiques
Unité associée au CNRS, URA 751
Université Lille 1
59655 Villeneuve d'Ascq Cédex, France
E-mail: bhowmik@gat.univ-lille1.fr
ramare@gat.univ-lille1.fr

Received on 27.2.1998 (3345)