ERRATUM TO “ASYMPTOTICS OF DETERMINANTS FROM FUNCTIONAL INTEGRATION”

RICHARD A. WENTWORTH

This note corrects an error in the evaluation of the constants $c_h$ in ref. [1]. Specifically, in the example illustrating the main result (Section III) the last term in eq. (2.14) of that paper was neglected:

\[(1) \quad -\frac{1}{4\pi} \int_{\partial R} d\hat{s} n \cdot \partial \sigma .\]

From eq. (3.2), for $z$ near the node in $M_1$, $\partial z \sigma_t \simeq -(h_2/h)(1/z)$, and for $z$ near the node in $M_2$, $\partial z \sigma_t \simeq -(h_1/h)(1/z)$. Plugging these into (1) above we obtain:

\[-\frac{1}{4\pi} \frac{h_2}{h} - \frac{1}{4\pi} \frac{h_1}{h} = -1 .\]

This adds $-1$ to the computation of the Liouville action in eq. (3.5), and 6 to the computation of $c_0$ in eq. (3.6). Hence, the correct value is:

\[(2) \quad c_0 = -24\zeta'(-1) - 6 \log(2\pi) - 2 \log 2 + 1 .\]

REFERENCES


E-mail address: wentworth@jhu.edu

Date: June 22, 2006.

Supported in part by NSF grant DMS-0505512.