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ERRATUM: MINIMAL SETS OF PERIODS FOR MORSE–SMALE DIFFEOMORPHISMS ON ORIENTABLE COMPACT SURFACES

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Let $f : M_g \to M_g$ be a Morse-Smale diffeomorphism on M_g a compact orientable surface of genus g. In the article [1] we considered $\zeta_f(t)$ the Lefschetz zeta function of f. We showed that

$$\zeta_f(t) = \begin{cases} \dfrac{p(t)}{(1-t)^2} & \text{if } f \text{ is orientation preserving and} \\ \\ \dfrac{p(t)}{(1-t^2)} & \text{if } f \text{ is orientation reversing,} \end{cases} \tag{1}$$

where $p(t)$ is the polynomial $\det(Id_{*k} - tf_{*1})$, and f_{*1} is the induced map on the 1-st homology group of M_g with rational coefficients. We showed that $p(t)$ is a product of cyclotomic polynomials of total degree $2g$. If $\zeta_f(t) \neq 1$ then it can be written as

$$\zeta_f(t) = \prod_{i=1}^{N_\zeta} (1 + \Delta_i t^{r_i})^{m_i}, \tag{2}$$

where $\Delta_i = \pm 1$, the r_i's are positive integers, m_i's are nonzero integers and N_ζ is a positive integer depending on f.

If $\zeta_f(t) \neq 1$ the minimal set of Lefschetz periods is defined as

$$\mathrm{MPer}_L(f) := \cap\{r_1, \ldots, r_{N_\zeta}\},$$

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