On the set of periods for the Morse-Smale diffeomorphisms

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We apply the representation of Lefschetz numbers of iterates in the form of so-called periodic expansion to determine the minimal set of Lefschetz periods MPer\(_L\)(f). Applying this approach we present an algorithmic method for finding minimal Lefschetz periods for Morse-Smale diffeomorphisms on \(M_g\) and \(N_g\), respectively an orientable and non-orientable compact surface without boundary of genus \(g\). Llibre and Sirvent calculated MPer\(_L\)(f) for several genuses \(g \leq 9\) of \(M_g\) and \(N_g\). Our approach makes it possible to find easily MPer\(_L\)(f) for much bigger values of \(g\).

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