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Harmonic differentials on Klein Surfaces

It is classical that on a Riemann surface of genus g, the vector spaces of real or complex harmonic differentials have dimension $2g$ with respect to the corresponding field. In this paper it is shown that for a nonclassical Klein surface of topological genus g and algebraic genus $\widetilde{g}$, the real and complex harmonic differentials have real dimension $\widetilde{g}$ and $2\widetilde{g}$ respectively.