1120-47-29 **Cyrus P Aryana*** (`aryana@svsu.edu`), Department of Mathematical Sciences, Saginaw Valley State University, University Center, MI 48710. *Self-adjoint Toeplitz operators associated with representing measures on doubly connected planar regions and their eigenvalues.*

An analysis is made of the eigenvalues of Self-adjoint Toeplitz operators defined on Hardy spaces associated with non-negative representing measures on multiply connected planar regions. The presence of eigenvalues of these operators acting on Hardy spaces associated with 2-holed connected planer regions is revealed in the case where there exists a bounded component in the complement of the essential range of the symbol ϕ of the operators. The analysis uses the zeros of translations of theta functions restricted to $\mathbb{R}^2$ in $\mathbb{C}^2$. (Received January 24, 2016)

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