Operators and Matrices
Volume 15, Number 2 (2021), 463–470
doi:10.7153/oam-2021-15-32

EIGENVECTORS AND SPECTRA OF SOME WEIGHTED COMPOSITION OPERATORS ON L^p SPACES

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Abstract. Let φ be a self map of $[0,1]$, and $\mathscr{W}$ be a map on $[0,1]$. If f belongs to the L^p space of $[0,1]$, then the operator $C_{\mathscr{W},\varphi}$ defined by $C_{\mathscr{W},\varphi}(f) = \mathscr{W} \cdot f \circ \varphi$, is a weighted composition operator. The spectrum of such an operator when φ is a monotonic contraction map and $\mathscr{W}$ is a Lipschitz continuous function is computed in this work.

Mathematics subject classification (2020): Primary 47B37; Secondary 47B33.
Keywords and phrases: Weighted composition operator, L^p spaces.

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Paper OaM-15-32