Notes on Frames in Weighted Hardy Spaces and Generalized Weighted Composition Operators

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Abstract : This work is to enrich the studies of the frames due to their prominent role in pure mathematics as well as in applied mathematics and many applications in computer science and engineering. Recently, there are remarkable studies of operators that preserve frames on some spaces, and this research could be considered as an extension of such studies. Indeed, this paper is to we characterize weighted composition operators that preserve frames in weighted Hardy spaces on the open unit disk. Moreover, it shows that this characterization does not apply to generalized weighted composition operators on such spaces. Nevertheless, this study could be extended to provide more specific characterizations.
Keywords : frames, generalized weighted composition operators, weighted Hardy spaces, analytic functions
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