Abstract 99 – Paper ID: 125

On the Compactness of Higher Order slant Hankel and slant Toeplitz Operators

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Abstract

Here, we study k^{th} order slant Hankel and k^{th} order slant Toeplitz operators on Hardy spaces. Contrary to the behavior of the classical Toeplitz operators, the symbol of the compression of a k^{th} order slant Toeplitz operator cannot be determined uniquely by the operator. Likewise, the symbol of the compression of a k^{th} order slant Hankel operator is also not unique. The nature of the boundedness of these operators has also been studied to compare their spectral properties and compactness criteria.

Keywords: k^{th} order slant Hankel, k^{th} order slant Toeplitz, Compression, Compactness

ISBN: 978-81-989164-2-6; DOI: 10.21467/abstracts.8.1