

A. Bourhim, **Spectral pictures of operator-valued weighted bi-shifts**, *J. Operator Theory*, 59 (2008), 193–210.

**Abstract**

In this paper, we introduce operator valued weighted bishifts on the Hilbert space,  $l^2(\mathbf{N}, \mathcal{H})$ , of all square-summable sequences whose elements are in a complex Hilbert space  $\mathcal{H}$ , and study their spectral and local spectral properties. We determine the spectrum and its parts of such bi-shifts, and compute the local spectrum of them at most points of  $l^2(\mathbf{N}, \mathcal{H})$ . Furthermore, we provide necessary and sufficient conditions for an operator valued weighted bi-shift to enjoy the single-valued extension property.