

# On Monotone and Boolean Cyclic Independence

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In a recent paper Collins, Hasebe and Sakuma introduced Monotone Cyclic independence. Their motivation was to study the spectrum of pomynoliams of random matrices with discrete limiting distribution.

In this talk we will describe three further developments of the theory.

- 1) We generalize the results of CHS.
- 2) In joint work with Hasebe and Lehner we use this notion of independence to describe the spectral distribution of the comb product of graphs.
- 3) We introduce Boolean Cyclic Independence, which describes spectral distribution of the star product of graphs.

*This talk is based on joint ongoing works with Celestino, and with Hasebe and Lehner.*