

# An application of Morse theory to Krein space numerical ranges

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## Abstract

In this talk we provide a Krein space analogue of Westwick's convexity theorem on the  $C$ -numerical range of a matrix for  $C$  Hermitian. This result generalizes the famous Toeplitz-Hausdorff theorem on the convexity of the field of values of a linear operator. This presentation is based on a joint work with H. Nakazato and J. da Providência.

## Keywords

Numerical range, Indefinite inner product,  $J$ -Hermitian matrix, Noninterlacing.

## References

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