

C. Costara, **On the  $2 \times 2$  spectral Nevanlinna-Pick problem**, *J. London Math. Soc.*, 71 (2005), 684–702.

**Abstract**

We present a method to construct interpolation functions into the  $2 \times 2$  open spectral unit ball. For the spectral Nevanlinna Pick problem, these functions are in some sense extremal, and the set of all these interpolation functions is enough to solve any interpolation problem, with solvable finite interpolation data. This fact is used to solve completely the two-point interpolation problem for the symmetrized bidisc and for the spectral unit ball. The complex geodesics for the two target sets are also obtained, and we use this fact to characterize the automorphism group of the symmetrized bidisc, and to reobtain a result of Ransford and White on the automorphism group of the spectral unit ball.