

SUPRAPOSINORMALITY AND HYPONORMALITY FOR THE GENERALIZED CESÀRO MATRICES OF ORDER TWO

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Abstract. It is well known that the generalized Cesàro matrices of order one are hyponormal operators on ℓ^2 , and it is also known that the Cesàro matrix of order two is hyponormal. Here the relatively new concept of supraposinormality is used to show that the generalized Cesàro matrices of order two are both posinormal and coposinormal, and that “most” of them are also hyponormal. A conjecture is propounded that would extend the hyponormality result.

Mathematics subject classification (2010): 47B20.

Keywords and phrases: Cesàro matrix, hyponormal operator, supraposinormal operator.

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