

1025-46-276

C. J. Lennard and **Daniel P. Radelet*** (dprst14@pitt.edu), Mathematics Department, 301 Thackeray Hall, Pittsburgh, PA 15260. *Surjectivity of an Averaged Product Map on Hardy-type Sequence Spaces*. Preliminary report.

The surjectivity of a Cesàro averaged Cauchy product map \boxtimes on certain sequence spaces will be investigated. It is known that $\boxtimes : H^2 \times H^2 \rightarrow \ell^1$ is not onto, and we generalize this idea to specific Hardy-type sequence spaces and their Banach subspaces using inequalities of Paley and Hardy. Specifically, we examine the nature of the mapping \boxtimes on spaces \mathcal{H}^p whose norm is defined to be the supremum over n of

$$\zeta_n^p(a) := \frac{1}{(n+1)^{1/p}} \left(\inf_{(t_{n+1}, t_{n+2}, \dots) \in c_{00}} \left\| \sum_{j=0}^n a_j z^j + \sum_{j=n+1}^{\infty} t_j z^j \right\|_{H^p(\Delta)} \right).$$

(Received January 23, 2007)