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**Anna K Savvopoulou\*** (as7202@albany.edu), 10 Queens Dr. , Apt 404, Schenectady, NY 12304, and **Karin Reinhold**. *Almost everywhere convergence of a case of weighted averages*. Preliminary report.

Given a probability measure  $\mu$  on  $\mathbb{Z}$ , Calderón and Bellow proved a weak type inequality for the maximal operator of  $\mu_n(f(x)) = \sum_{k \in \mathbb{Z}} \mu^n(k) f(\sigma^k(x))$  where  $\mu^n$  denotes the convolution product. This talk will focus on the case of a sequence of probability measures on  $\mathbb{Z}$ , denoted by  $\{\mu_n\}$ , obtained inductively in the following way,  $\mu_1 = \nu_1$ ,  $\mu_2 = \nu_1 * \nu_2$ ,  $\dots$ ,  $\mu_n = \nu_1 * \nu_2 * \dots * \nu_n$ , where each one of the  $\nu_i$  is in turn a strictly aperiodic probability measure on  $\mathbb{Z}$  with expectation 0 and finite second moment. We will discuss the almost everywhere convergence of the operators  $\mu_n f(x) = \sum_{k \in \mathbb{Z}} \mu_n(k) f(\sigma^k x)$  for  $f \in L^1(X)$  and  $x \in X$ . Throughout the talk  $\sigma$  will stand for a measure preserving transformation of a probability measure space  $X$ . (Received September 09, 2008)