Meeting: 1003, Atlanta, Georgia, AMS CP 1, AMS Contributed Paper Session

1003-60-998 **Constantine Georgakis*** (cgeorgak.@math.depaul.edu), DePaul University, Mathematics Department, 2219 N. Kenmore Ave, Chicago, IL 60614. *A Moment Inequality for a Functional of a Birth Markov Chain.* Preliminary report.

Let X(t) be a discrete state continuous time Birth Markov Chain. The transformation that maps a sequence a(n) to the function E(a(X(t)) ,generated by taking the expectation of the random variable obained when the argument of the sequence is replaced by the process X(t), is shown to be a bounded operator from a weighted normed sequence lp to the function space Lp on the positive real line, where the sequence of the weights is that of the means of the exponential distribution of the holding times for the Birth process. This result includes as special case an inequality of N. G. DeBrujin concerning the Borel transformation on the sequence space lp. (Received October 01, 2004)