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Magda Peligrad* (peligrm@math.uc.edu), University of Cincinnati, Department of Mathematical Sciences, POBox 210025, Cincinnati, OH 45215, and **Sergey Utev**. *Asymptotic results for linear processes with martingale-like innovations.*

The subject of this talk is the central limit theorem and its invariance principle for partial sums of linear processes with dependent innovations. The classes of innovations considered are martingale differences and their generalizations. The central limit theorem is obtained under general square summable coefficients, including in this way the long range dependence case. Moreover we express the variance of partial sums in a form easy to apply. Ergodicity is not required. Examples also include functionals of an i.i.d. sequences, Bernoulli shift processes, strong mixing sequences, and a discussion on the optimality of the results. The invariance principle requires additional restrictions on the sequence of constants. We show that if the weights are absolutely summable and the sequence of innovations satisfy the invariance principle so does the process associated with partial sums of the linear process. (Received August 16, 2006)