Empirical Processes of Dependent Data: New Results and New Techniques Prof. Dr. Herold Dehling (Ruhr-Universität Bochum)

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In my talk, I will present some new techniques and results in the theory of empirical processes of dependent data that have recently been developed by Dalibor Volny, Olivier Durieu, Marco Tusche and myself. The underlying processes are on the border between weak and long range dependence, and do not satisfy any of the standard mixing conditions. Our results apply, e.g. to Markov chains and deterministic dynamical systems. As an application of our general results, we can establish convergence of the sequential empirical process of ergodic torus automorphisms.