“Doukhan’s concept of weak dependence - examples and basic tools”
by Michael Neumann (TU Braunschweig)

Mixing conditions are the classical tool for restricting the dependence between time series data. It turns out, however, that some processes of interest in statistics do not fulfill such conditions.

Doukhan and Louhichi (1999) introduced an alternative concept of weak dependence which is more general than mixing and also includes important classes of processes which are not mixing. We give some examples and discuss some recent results such as a central limit theorem for triangular schemes and exponential inequalities.

The talk is based on joint work with E. Paparoditis (University of Cyprus) and R. Kallabis (TU Braunschweig).