



Figure 1: Schematic and model for the Wing-Kristofferson model of the timing of repetitive, discrete motor responses. It is assumed that an internal clock process generates trigger pulses at intervals C_j . A response occurs an independent delay, D_j , after each trigger to account for e.g. neuromuscular transmission time, movement time, etc. Neither C_j or D_j are directly observable from response timing, however, the clock and motor variance, σ_C^2 and σ_D^2 , can be estimated from the characteristics of the interresponse intervals I_j . The lag one serial correlation $\rho_I(1)$, which measures dependence of consecutive interresponse intervals, can be negative without explicit negative feedback in the system. For example, a zero variance internal clock (e.g. if perfectly following an external metronome cue, and generally when $\sigma_D^2 \gg \sigma_C^2$) would lead to $\rho_I(1) = -1/2$. See Wing and Kristofferson (1973) for derivations and further details.