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AN INVARIANCE PRINCIPLE FOR WEAKLY DEPENDENT STATIONARY GENERAL MODELS

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Abstract: The aim of this paper is to refine a weak invariance principle for stationary sequences given by Doukhan and Louhichi [10]. Since our conditions are not causal, our assumptions need to be stronger than the mixing and causal θ-weak dependence assumptions used in Dedecker and Doukhan [5]. Here, if moments of order greater than 2 exist, a weak invariance principle and convergence rates in the CLT are obtained; Doukhan and Louhichi [10] assumed the existence of moments with order greater than 4. Besides the η- and κ-weak dependence conditions used previously, we introduce a weaker one, λ, which fits the Bernoulli shifts with dependent inputs.

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