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A LIMIT PROCESS FOR A SEQUENCE OF PARTIAL SUMS OF RESIDUALS OF A SIMPLE REGRESSION ON ORDER STATISTICS WITH MARKOV-MODULATED NOISE

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Abstract: We consider a simple regression model where a regressor is composed of order statistics, and a noise is Markov-modulated. We introduce an empirical bridge of regression residuals and prove its weak convergence to a centered Gaussian process. In the proof we use convergence properties of order statistics.

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