Introduction to Interval Estimation for a First-Order Positive Autoregressive Process

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1 What is the question of the paper?

Author wants to construct asymptotically valid confidence interval for the coefficient of first-order autoregressive (AR) with positive error.

2 Why should we care about it?

Estimators of coefficients in the normalizing constant come from the method of kernal density estimation may be biased, other consistent estimation is needed to construct a valid confidence interval.

3 What is your (or the author's) answer?

Author proposes a novel way to estimate coefficients consistently and presents a asymptotic valid confidence interval for AR(1) coefficient.

4 What is the implications of the answer?

Stimulation shows the actual coverage rates of the author's method are closed to 95% confidence level while other method's coverage rates are slightly smaller than 95% confidence level.