Li, Yongming; **Ying, Rui**; **Cai, Jipan**; **Yao, Jing**
Pointwise strong consistency of recursive kernel estimator for probability density and failure rate function under WOD sequence. (Chinese. English summary) Zbl 1349.62117
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Summary: This paper deals with a kind of recursive density kernel estimator for unknown probability density function based on widely orthant dependent (WOD) sample. By the Rosenthal-type inequality for WOD sequence, we study the pointwise strong consistency for the given estimator under suitable conditions. As application, the consistency of the failure rate function estimator is discussed.

MSC:

62G07 Density estimation
62G20 Asymptotic properties of nonparametric inference
62N05 Reliability and life testing

Keywords:

widely orthant dependent sample; recursive kernel estimator; failure rate function; pointwise strong consistency

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