Root-*n* consistency and functional central limit theorems for estimators of derivatives of convolutions of densities *

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Abstract

In this paper we generalize recent root–n consistency results and functional limit theorems for estimators of convolutions of densities to the estimation of their derivatives. Our estimators allow for random bandwidths.

Key words and phrases: Weighted L_p -spaces, U-processes, bandwidth selection, bounded variation.

AMS 2000 subject classifications. Primary 62G07; secondary 60F17, 62G20.

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Research partially supported by NSF Grant DMS-0405791.