Convergence of Wavelet Estimators and Applications to Estimations for Density Derivatives

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This talk consists of two parts. We deal with firstly the uniform and norm convergence of wavelet thresholding estimator of differential operators on Besov spaces and Sobolev spaces with integer exponents. In particular, the convergence order is focused. Then the second part is devoted to estimate density derivates by using the results in the first one. In addition, the optimality is discussed.