

The main goal of this paper is to use the wavelet transform modulus maxima lines (WTMM) and the detrended fluctuations analysis (DFA) methods to establish a new technique of lithofacies segmentation from well logs data. The WTMM is used to delimitate lithofacies boundaries and the DFA is used to provide an exact estimation of the roughness coefficient of lithofacies. Application of the proposed idea at the synthetic and real data of a borehole located in Berkine basin shows that the proposed technique can enhance reservoirs characterization