

The main goal of this paper is to establish reservoir media heterogeneities by the wavelet transform modulus maxima lines. First, we gathered amplitude versus offsets (AVO) amplitudes at the top of the reservoirs, then we calculated the 2D wavelet transform after we calculated its maxima, and we estimated the Hölder exponent at each maxima. Variation of the Hölder exponent can give more information about lithology and fluid nature at any point. We applied the proposed idea at a 2D synthetic AVO intercept model, obtained results showed that the wavelet transform modulus maxima lines can be used as a seismic image processing tool. We suggest application of the proposed idea on real AVO seismic data and its attributes. It can give more ideas about reservoirs model