

THE BINARY INPUT OUTPUT FUZZY ASSOCIATIVE MEMORY IN THE 3D-RESERVOIR CHARACTERIZATION

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In the last years we have seen the development of several research towards the modeling of the 3D-Reservoir Characterization by using Artificial Neural Networks. Generally the feed-forward multi-layered neural network trained with the back-propagation algorithm is used in this modeling. The despite of that there are a large number of developments successful based on applications of neuro-fuzzy networks in several different fields, there are not applications of neuro-fuzzy networks in the 3D- Reservoir Characterization. In this article we present some aspects of the application of the BIOFAM (Binary Input-Output Fuzzy Associative Memory) in the 3D-Reservoir Characterization. We introduce a novel method based on Gibbs sampler for the learning of the BIOFAM, which is better than the conventional method for the learning of the BIOFAM. We discuss the BIOFAM in relation to theirs applications in the 3D-Reservoir Characterization by using these two methods of learning, namely the Gibbs sampler and the learning, namely the Gibbs sampler and Learning Vector Quantizador.