

A Growing Parallel Self-Organizing Map for Unsupervised Learning

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SOM approximates a high dimensional unknown input distribution with lower dimensional neural network structure to model the topology of the input space as closely as possible. We present a SOM that processes the whole input in parallel and organizes itself over time. This way, networks can be developed that do not reorganize their structure from scratch every time a new set of input vectors is presented but rather adjust their internal architecture in accordance with previous mappings.