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Talk: Computer: Some variants of spiking neural P systems and application in image fusion

Abstract: Spiking neural P systems are a class of neural-like membrane computing models, inspired from the spiking mechanism of biological neurons. In the past years, some biological mechanisms have been introduced to propose many variants of spiking neural P systems. We first introduce several models recently proposed by our group, and then give the results of their computational completeness.

Image fusion is a basic task of image processing, especially multi-modal image fusion, including multi-focus images, multi-modality medical images, and optical and infrared images. We introduce application of two variants in multi-modal image fusion, including dynamic threshold neural P systems and coupled neural P systems.