ABSTRACT
Hopfield proposed a class of recurrent neural networks which are content-addressable memory systems with binary threshold units.
Yet there exist next to none nontrivial encoded neural networks in which the exact association between the initial patterns and the
cyclic steady states are given. In this paper, we give one in which the encoded network depends on two parameters. The long term
behaviors of its solutions are then investigated by studying the complete relations between the cyclic steady
states and the initial patterns by classifying the parameters into 10 different cases. A previous example is also recalled and compared
with our present results.

Keywords: Hopfield neural network; Cyclic steady pattern; Basin of attraction; Content-addressable memory...

REFERENCES