

Title:	Hybrid Cellular Ants for Clustering Problems
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Author:	NIKOLAOS P. BITSAKIDIS, SAVVAS A. CHATZICHRISTOFIS AND GEORGIOS CH. SIRAKOULIS
Abstract:	In the last decade the amount of the stored data related to almost all areas of life has rapidly increased. However, the overall process of discovering knowledge from data demands more powerful clustering techniques to ensure that this knowledge is useful. In this paper, two nature inspired computation techniques, Cellular Automata (CA) and Ant Colonies are combined by taking advantage of their common prominent features, such as simplicity, locality and self organization. Inspired by the cellular ants algorithm of Vande Moere and Clayden which has designed for clustering purposes, a corresponding cellular ants model was developed in order to overcome some of the previous model limitations and to provide new insights in cellular ants based clustering. The presented simulation results prove the clustering efficiency of the proposed model in both qualitative and quantitative terms. Keywords: Cellular automata, ant colonies, clustering, modeling