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New topics in colonies theory. (English) Zbl 0939.68060
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Summary: A colony, as introduced by Kelemen and Kelemenová in 1992, is meant to be a grammatical model of systems composed of as simple as possible agents which cooperate in such a way that a complex behaviour emerges at the level of the system. Technically, a colony is a symbol manipulating system consisting of as simple as possible components which behave in a cooperative way such that the collective competence is strictly larger than the components' competence. We survey here some recently introduced variants and related questions: PM-colonies (with agents working by means of point mutations), families of languages associated to a colony, languages of sentential forms, classes of axioms, etc. Besides new results, several research topics and open problems are formulated.

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