international cooperation are fundamentally different from the same sociological community, the analysis of which was previously carried out by the author of this study. Further research will be devoted to the analysis of other scientific disciplines in Russian science using the WoS database to identify diverse cooperation patterns typical for different scientific disciplines or groups of disciplines.
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Sidorov Sergei
Saratov State University
Modelling the triadic closure mechanism in growth complex networks.

The structure and properties of many real networks cannot be meticulously captured by random graph models that cannot generate networks with complex cluster and community patterns. In social graphs, a simple yet realistic mechanism known as triadic closure is considered to be an important factor in producing high clustering and complex community structures. Triadic closure refers to the phenomenon where new links are formed between nodes that have a common neighbor, resulting in the closing of triads. In this talk we examine different types of triadic closure mechanism in growth complex networks.

Souravlas Stravos, Sifaleras Angelo
University of Macedonia, Greece
On scheduling probabilistic block cyclic redistribution.

Block-cyclic data distribution is commonly used to organize array elements on the processors of a coarse-grained distributed memory parallel computer. In many scientific applications, the data layout must be reorganized at run-time in order to enhance locality and reduce remote memory access overheads. In this paper, we present a general framework for developing array redistribution algorithms by employing probabilistic strategies. Probabilistic strategies are required in order to check and control the probability of certain processors being overloaded in the near future. In such a scenario, changes in the current data distribution are required. The state of the network is controlled via a Markovian network. Using our proposed framework, we have developed efficient algorithms that redistribute an array from one block-cyclic layout to another. Some of the contributions of this work are the following: The proposed probabilistic model can be used independently with any other existing block-cyclic redistribution strategy, not only the one developed in this work. Also, it is simple and does not add any overhead. Finally, it can work proactively in order to avoid possible overloading of certain processors, and thus it is particularly suitable for dynamic distribution problems, that is, during runtime.