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Abstracts of Plenary and Invited Lectures

Section:

2. Algebra

1991 MS Classification:
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Simple Groups in Computational Group Theory

Given an arbitrary subset S of the symmetric group S_n, can one efficiently find properties of $G = \langle S \rangle$, such as $|G|$, the derived series, a composition series, Sylow subgroups ... ? I will briefly survey recent approaches to such questions, emphasizing the use of simple groups and of probabilistic methods for devising algorithms.