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**Review text:**

Symbolic manipulations using MAPLE are very popular in numerous applications. Within this framework, the first author studies systematically the non-numerical solutions of various equations. The paper presents the recent result, an algorithm of a search for rational solutions for the first order linear difference systems. In a way paralleling the co-author's treatment of the similar differential problem the method circumvents, in two steps, the current Birkhoffian costly reduction of the system to the single equation. In the first step one constructs the common denominator. Its knowledge reduces the recipe to the search for the polynomial solutions of a suitably modified problem. The text is compact and dense, with its tricks and subtleties summarized in a few theorems. They are complemented by an impressive four-by-four illustrative example.