

## On rational solutions of linear systems of Mahler equations

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Mahler equations relate a function to its evaluation at certain powers of its argument. They arise in transcendence proofs and in the context of automatic sequences, for instance. In recent years, Mahler equations have received increasing attention, with both theoretical aspects and solution methods being investigated, see e.g. [1–4].

We report on ongoing work on algorithms for computing all rational function solutions of linear systems of Mahler equations. The presentation focuses on the computation of universal denominators for solutions of a given system. Our preliminary results will be illustrated by examples.

### Keywords

Mahler equations, rational solutions, universal denominators

### References

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