Title: On the algorithmic complexity of some numeration-related problems

Author(s): Dávid Bóka, Péter Burcsi and M. János Uray

In this paper, we give explicit upper bounds on the algorithmic complexity of some problems related to matrix-based numeration systems. We consider different types of deterministic algorithms, and compare their worst-case time and space complexity. We also analyze probabilistic algorithms, and examine the question whether they can serve as a reliable alternative.

Address:
Dávid Bóka
Department of Computer Algebra
Faculty of Informatics
ELTE – Eötvös Loránd University
Pázmány Péter sétány 1/c
H-1117 Budapest
Hungary

Address:
Péter Burcsi
Department of Computer Algebra
Faculty of Informatics
ELTE – Eötvös Loránd University
Pázmány Péter sétány 1/c
H-1117 Budapest
Hungary

Address:
M. János Uray
Department of Computer Algebra
Faculty of Informatics
ELTE – Eötvös Loránd University
Pázmány Péter sétány 1/c
H-1117 Budapest
Hungary