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An approximating k-ary GCD algorithm

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Abstract

© 2016, Pleiades Publishing, Ltd. In our paper we elaborate a new version of the k-ary GCD algorithm. Our algorithm is based on the Farey Series and surpasses all existing realizations of the k-ary algorithm. It can have practical applications in Mathematics and Cryptography.

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Keywords

Euclidian GCD algorithm, Farey series, k-ary GCD, Weber-Jebelean algorithm