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## Matrices inversion with the layered Gauss-Jordan transformation

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Many data exploration methods include matrices inversion tasks. Exploration of large data sets require quick and accurate inversion of high-dimensional matrices. The presented paper describes a concept of inverting matrices with the basis exchange algorithms which are based on the layered Gauss-Jordan transformation. The possibility of a parallel implementation of the proposed layered inversion algorithm is also considered in the paper.

**Keywords:** data exploration large matrices inversion basis exchange algorithm layered Gauss-Jordan transformation