

# ANNOTATION

for the bachelors work of Starovoitenko Denis Sergeevich

« Procedures for encoding and processing sparse matrices »

Graduate work deals with the analysis of coding methods for sparse matrices and their factorization algorithms, multiplication, conversion, etc. The project deals with classification of sparse matrices, their forms, and their methods of storage. It also presents examples of some popular storage methods. Various methods have been considered theoretically, with a description of positive and negative consequences of their use, and an evaluation of their effectiveness. On examples Allted and MatheMatica shows the mechanism unification package design. This work is recommended as a quick reference when analyzing and choosing forms of storage for sparse matrices.

Total volume of the work: 82 pages, main part – 74 pages, 61 illustrations, 7 tables, 19 bibliographic titles.

Keywords: Sparse matrix, storage methods, encoding, files formats, mathematical and parallel packets, Matrix Market, Harwell - Boeing, CRS, CCS, SDS, JDS, CDS, Allted, MatLab, MatheMatica.