

# ***SPARSE* Project Report**

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In this document we present *SPARSE*, a Julia package developed as part of the course IN480 - Parallel and Distributed Computing. In *SPARSE*, we port and benchmark a graph algorithm built upon GraphBLAS, a mathematical abstraction to represent and operate with graphs using just a narrow set of linear algebra primitives.

*SPARSE* source code can be found at [sparse.jl](https://github.com/andrea-pelosi/sparse.jl).

## **Preliminaries**

**What is GraphBLAS**

**Theoretical foundations**

**Most common operations overview**

**GraphBLAS objects**

**SuiteSparse:GraphBLAS and SuiteSparse:GraphBLAS.jl**

**Algorithm description**