



SMART GRID CENTER
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SGC WEBINAR

SuiteSparse:GraphBLAS: Graph Algorithms in the Language of Sparse Linear Algebra

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SuiteSparse:GraphBLAS is a full implementation of the GraphBLAS standard, which defines a set of sparse matrix operations on an extended algebra of semirings using an almost unlimited variety of operators and types. When applied to sparse adjacency matrices, these algebraic operations are equivalent to computations on graphs. GraphBLAS provides a powerful and expressive framework for creating graph algorithms based on the elegant mathematics of sparse matrix operations on a semiring. Key features and performance of the SuiteSparse implementation of GraphBLAS package are described. The implementation appears in Linux distros, forms the basis of the RedisGraph module of Redis (a commercial graph database system), and appears as C=A*B in MATLAB. Graph algorithms written in GraphBLAS can rival the performance of highly-tuned specialized kernels, while being far simpler for the end user to write.

June 8, 2022 at 3:00 P.M. CDT

Register in advance [here](#)



Tim Davis is a Professor in the Computer Science and Engineering Department at Texas A&M University. His primary scholarly contribution is the creation of widely-used sparse matrix algorithms and software (including $x=A\backslash b$ in MATLAB). Davis is a Fellow of SIAM, ACM, and IEEE.