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Department of Computer Sciences and Oden Institute, UT Austin

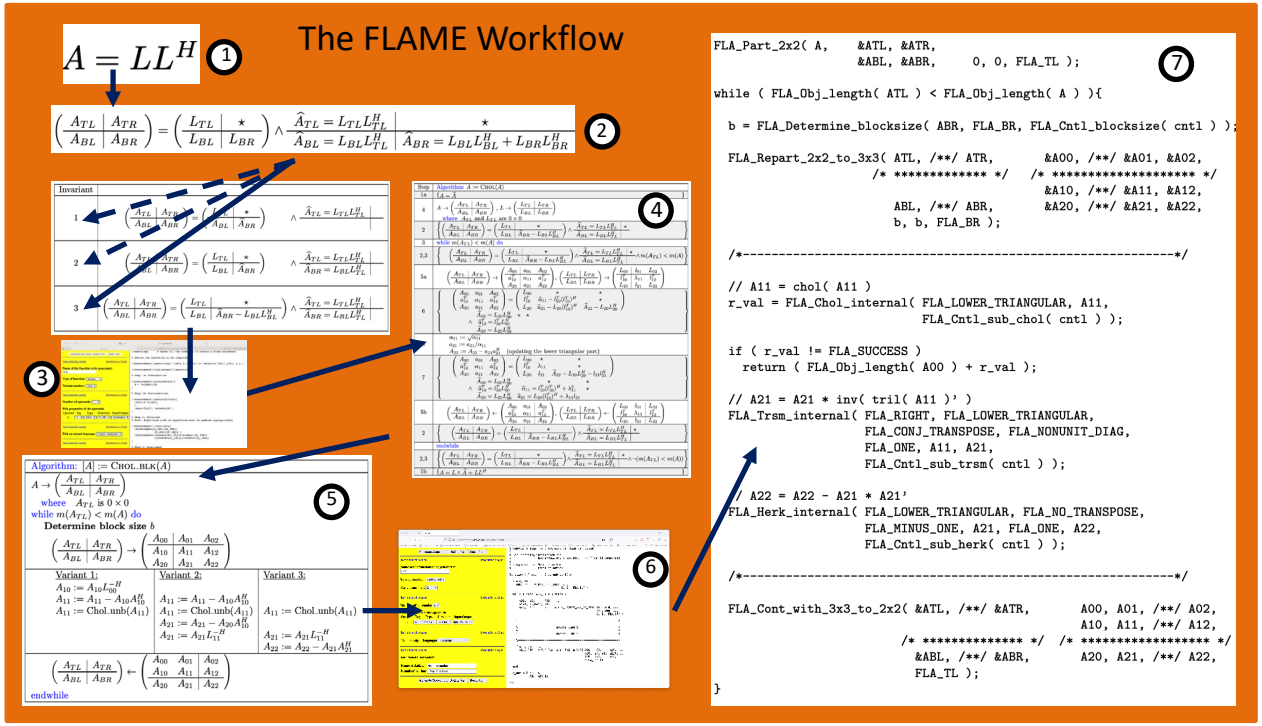
The Science of High-Performance Computing Group

Research interests:

Formal derivation of algorithms; linear and multilinear algebra; high-performance computing

Projects:

- PLAPACK
- FLAME
- libflame
- SuperMatrix
- Elemental
- ROTE
- DxTer
- BLIS



Project ideas:

Taking FLAME in more challenging directions:

- Factorization of skew-symmetric matrices
- Contraction with structured tensors
- In-place tensor factorization

Collaborators:

- UT Austin: Formal derivation, high-performance linear algebra
- SMU: Computational chemistry
- CMU: Formal methods and high-performance computing

R. van de Geijn and M. Myers. “Applying Dijkstra’s Vision to Numerical Software.” In *Edsger Wybe Dijkstra: His Life, Work, and Legacy* (Apt and Hoare, Eds.). ACM. 2022