

References

- [1] A. ABDELFAH, H. ANZT, E. G. BOMAN, E. CARSON, T. COJEAN, J. DONGARRA, A. FOX, M. GATES, N. J. HIGHAM, X. S. LI, J. LOE, P. LUSZCZEK, S. PRANESH, S. RAJAMANICKAM, T. RIBIZEL, B. F. SMITH, K. SWIRYDOWICZ, S. THOMAS, S. TOMOV, Y. M. TSAI, AND U. M. YANG, *A survey of numerical linear algebra methods utilizing mixed-precision arithmetic*, The International Journal of High Performance Computing Applications, 35 (2021), pp. 344–369.
- [2] M. BRINSKIY AND M. LUBIN, *An introduction to MPI-3 shared memory programming*, tech. rep., Intel, 2017.
- [3] R. COCKETT, *The block conjugate gradient for multiple right hand sides in a direct current resistivity inversion*. row1.ca/pdf/dc-resistivity-block-cg.pdf, 2012.
- [4] J. GERE AND B. GOODNO, *Mechanics of Materials*, Cengage Learning, 2009.
- [5] T. GERHOLD AND J. NEUMANN, *The parallel mesh deformation of the dlr tau-code*, in New Results in Numerical and Experimental Fluid Mechanics VI, C. Tropea, S. Jakirlic, H.-J. Heinemann, R. Henke, and H. Hönlinger, eds., Berlin, Heidelberg, 2008, Springer Berlin Heidelberg, pp. 162–169.
- [6] G. GUENNEBAUD, B. JACOB, ET AL., *Eigen v3*. eigen.tuxfamily.org, 2010.
- [7] P. KAUFMANN, O. WANG, A. SORKINE-HORNUNG, O. SORKINE-HORNUNG, A. SMOLIC, AND M. GROSS, *Finite element image warping*, Computer Graphics Forum (proceedings of EUROGRAPHICS), 32 (2013), pp. 31–39.
- [8] G. KENWAY, G. KENNEDY, AND J. R. R. A. MARTINS, *Aerostructural optimization of the common research model configuration*, in 15th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference, 2014.
- [9] S. KEYE AND M. GAMMON, *Development of deformed cad geometries of nasa’s common research model for the sixth aiaa cfd drag prediction workshop*, in 34th AIAA Applied Aerodynamics Conference, 2016.
- [10] P. KRYSL, *Parallel assembly of finite element matrices on multicore computers*, Computer Methods in Applied Mechanics and Engineering, 428 (2024), p. 117076.
- [11] D. LACY AND A. SCLAFANI, *Development of the high lift common research model (hl-crm): A representative high lift configuration for transonic transports*, January 2016.
- [12] P. LAMATA, S. NIEDERER, D. NORDSLETTEN, D. C. BARBER, I. ROY, D. R. HOSE, AND N. SMITH, *An accurate, fast and robust method to generate patient-specific cubic hermite meshes*, Medical Image Analysis, 15 (2011), pp. 801–813.
- [13] A. LIU AND B. JOE, *Relationship between tetrahedron shape measures*, BIT, 34 (1994), p. 268–287.
- [14] D. P. O’LEARY, *The block conjugate gradient algorithm and related methods*, Linear Algebra and its Applications, 29 (1980), pp. 293–322. Special Volume Dedicated to Alson S. Householder.
- [15] T. PANITANARAK AND S. SHONTZ, *A parallel log barrier-based mesh warping algorithm for distributed memory machines*, Engineering with Computers, 34 (2017), pp. 59–76.
- [16] J. PARK, S. SHONTZ, AND C. S. DRAPACA, *Automatic boundary evolution tracking via a combined level set method and mesh warping technique: Application to hydrocephalus*, in Mesh Processing in Medical Image Analysis 2012, J. A. Levine, R. R. Paulsen, and Y. Zhang, eds., Springer Berlin Heidelberg, 2012, pp. 122–133.
- [17] Y. SAAD, *Iterative Methods for Sparse Linear Systems: Second Edition*, Society for Industrial and Applied Mathematics, 2003.
- [18] S. P. SASTRY, E. KULTURSAI, S. M. SHONTZ, AND M. T. KANDEMIR, *Improved cache utilization and preconditioner efficiency through use of a space-filling curve mesh element- and vertex-reordering technique*, Engineering with Computers, 30 (2014), p. 535–547.
- [19] N. SECCO, G. K. W. KENWAY, P. HE, C. A. MADER, AND J. R. R. A. MARTINS, *Efficient mesh generation and deformation for aerodynamic shape optimization*, AIAA Journal, (2021).
- [20] S. SHONTZ, *Numerical Methods for Problems with Moving Meshes*, PhD thesis, Cornell University, January 2005.
- [21] S. M. SHONTZ AND S. A. VAVASIS, *Analysis of and workarounds for element reversal for a finite element-based algorithm for warping triangular and tetrahedral meshes*, BIT, Numerical Mathematics, 50 (2010), pp. 863–884.
- [22] H. SI, *Tetgen, a Delaunay-based quality tetrahedral mesh generator*, ACM Trans. Math. Softw., 41 (2015).
- [23] M. L. STATEN, S. J. OWEN, S. M. SHONTZ, A. G. SALINGER, AND T. S. COFFEY, *A comparison of mesh morphing methods for 3d shape optimization*, in Proceedings of the 20th International Meshing Roundtable, W. R. Quadros, ed., Berlin, Heidelberg, 2012, Springer Berlin Heidelberg, pp. 293–311.
- [24] W. TANG, F. JIA, AND X. WANG, *An improved adaptive triangular mesh-based image warping method*, Frontiers in Neuroinformatics, 16 (2023), p. 1042429.
- [25] G. TURK AND B. MULLINS, *Large geometric models archive: Skeleton hand*. sites.cc.gatech.edu/projects/large_models/.
- [26] Z. ZHAO, R. MA, L. HE, X. CHANG, AND L. ZHANG, *An efficient large-scale mesh deformation method based on MPI/OpenMP hybrid parallel radial basis function interpolation*, Chinese Journal of Aeronautics, 33 (2020), pp. 1392–1404.