Session 29
Strategy 4: Transform-and-Conquer

📄 Lecture Summary

Transform by Simplification

3. Efficiency of solution of linear equations based on Gaussian elimination
4. Improvements to straight elimination algorithm
5. Other applications of Gaussian elimination
   - LU decomposition and fast solutions of systems of linear equations
   - Matrix inverse, singular matrices, singularity check, use to solve systems of linear equations
   - Computing matrix inverse

📄 Session Exercise

📖 **Exercise 6.2 •** 1, 2, 3, 5, 7

📄 Reading List

📖 6.2

📄 Keywords

[LU] Decomposition, [matrix] inverse, partial pivoting, singular [matrix]