

1. CONSTELLATION OF CONCEPTS

- root-finding
- numerical quadrature
 - differentiation
 - integration
- interpolation
- matrix eigenvalue problem
- solution of linear systems
 - error analysis
 - “distance to singularity”
- linearization
 - local/global convergence?

1.1. **Desiderata.** We can evaluate a method based on:

- accuracy
- stability
- failure modes
- implementation
 - functional/imperative
 - legibility
 - sanity
 - computational complexity