

Recap (second half):

- Iterative methods: General idea, Jacobi, Gauss Seidel, SOR
 - convergence criteria for iterative solvers (Lax - Richtmyer equivalence theorem)
- Interpolation:
 - Aitken's, De Casteljau's algorithms
 - Bézier curves and properties
- Gaussian Quadrature and relation to other integration rules:
 - Gaussian Quadrature
 - Gaussian nodes based on orthogonality constraints
 - Legendre polynomials
 - Simpson's scheme
 - Interval transformation.
 - Monte Carlo Integration (concept)

Differential equations: (ordinary)

- IVP
- What is a solution to ODE
- One-step methods: FE, BE, HE, CN
- Implicit/explicit methods
- consistency error, convergence order
- stability (absolute)

- convergence conditions (consistency, stability)
- RK methods, Butcher arrays

* *Taylor method (just concept, i.e. use Taylor expansion)*