

TOPICS IN
NUMERICAL ANALYSIS

(Modern approach to old and new issues)

Advanced Seminar – Applied Mathematics

Tuesday 14–16:00 Schrieber 006

Eitan Tadmor

Possible topics include

- Iterative root finders: global convergence, Newton-Moser,...
- Symmetric eigenproblems: the Divide & Conquer method
- Symmetric eigenproblems as flows of ODEs (Toda lattice)
- Numerical stability: resolvent estimates vs. power-boundedness
- Numerical boundary treatments of time dependent problems
- Discrete solvers for semi-discrete time-dependent problems
- Multilevel methods: compression and localization
- Deblurring, enhancement and capturing moving fronts