

Exam topics

March 14, 2016

0.1 Ping-pong Topics

1. Differential equations
 1. Spaces (H , L_2 , W , C).
 2. Classification
 3. Bilinear forms
 4. Theorems of existence and uniqueness
2. Numerical methods
 1. Discretization
 2. Stability
 3. Convergence
3. Finite difference
4. Finite elements
5. Finite volumes (idea, upwind schemes, nonoscillating schemes)
6. Integral equations
7. Spectral methods (idea, suitability)