Project Topics

1. Sparse representaion

2. Numerical methods for PDE (Finite difference methods, Spectral methods, Variational approach and FEM)

3. Matrix/Tensor decomposition

4. Notes on computing solution of linear equation system

5. Computing solution to linear equation system of large scale sparse matrix

6. Principle of topology optimization and its applications

7. Condition number and its usage in solving linear equation system

Project Proposal

- Please choose one topic from 7 project topics, and email your project proposal to csmath2015@163.com, including
  - Project title
  - Associated project topic
  - Information about team member(s)
- Each team is at most 2 students
- Deadline: June 4, 2019

Project Presentation

- Each team is required to present your project on

  June 18 or June 25, 2019

- The suggested content of the presentation (10 minutes):
  - Background / problem definition / applications (2 minutes)
  - Mathematics (how to transform the problem into a mathematical problem, the mathematical theory, how to solve the problem in the computer) (4 minutes)
  - Demo (show your code and implementation, analyze the accuracy / performance / ...) (2 minutes)
  - Q&A (2 minutes)
- After your presentation, please send the presentation slides (ppt/pdf) to csmath2015@163.com