# **COURSES FOR GRADUATE STUDENTS**

2021.02.03

The following courses can be taught in English, but the medium of instruction will be finalized by the instructor according to the status of the class.

## **MATHEMATICS GROUP**

Algebra Algebraic graph theory Combinatorics Graph theory Graph theory and interconnection networks Python and machine learning algorithms Special topics in Combinatorics Special topics in Graphs

Applied analysis Complex analysis Differential geometry Fourier analysis Functional analysis Geometric analysis Measure theory Ordinary differential equations Operation research Operator theory Real analysis Partial differential equations Seminar in Mathematics (I), (II)

#### **SCIENTIFIC COMPUTING GROUP**

Finite element analysis Finite difference analysis Matrix computations Matrix theory Meshless methods Numerical methods for ODE Numerical methods for PDE Numerical polynomials algebra Parallel computing Symbolic computations Seminar in parallel processing Sparse matrices Seminar in Scientific Computing (I), (II)

#### STATISTICS GROUP

Discrete data analysis Financial time series analysis Multivariate analysis Regression analysis Survival analysis Statistical learning and data mining Seminar in Statistics (I), (II)

### **DATA SCIENCE GROUP**

Data science capstone project Data visualization Discrete data analysis Financial time series analysis Foundations of manifold learning Graph theory and interconnection networks Matrix computations Multivariate analysis Parallel computing Regression analysis Sparse matrices Survival analysis Statistical learning and data mining Seminar in data science (I), (II)