Applied Functional Analysis and Machine Learning*

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Timetable: Course of 28 hours (2 two-hours lectures per week): Classes on Tuesday 10:30 - 12:30 and Wednesday, 8:30 - 10:30. First lecture on Wednesday November 28th, 2017. Sala Riunioni 318 DEI/G 3rd floor, via Gradenigo 6).

Course requirements: The classical theory of functions of real variable: limits and continuity, differentiation and Riemann integration, infinite series and uniform convergence. The arithmetic of complex numbers and the basic properties of the complex exponential function. Some elementary set theory. A bit of linear algebra.

Examination and grading: Homework assignments and final test. Students wishing to take the exam for this course, are kindly requested to contact the Coordinator of the PhD program in Mathematical Sciences.

Aim: The course is intended to give a survey of the basic aspects of functional analysis, machine learning, regularization theory and inverse problems.

Course contents:


References:


Other material and research papers will be available online for download.