UNIVERSITÀ DEGLI STUDI DI TORINO

ID

TIC37_DIP_MAT

Visiting Professor Program
Academic year 2019/2020

DEPARTMENT OF MATHEMATICS "GIUSEPPE PEANO"

TEACHING COMMITMENT: 16 hours

COURSE TITLE

Stochastic differential equations

TEACHING PERIOD

1st term

SCIENTIFIC AREA

Mathematical Analysis

LANGUAGE USED TO TEACH

English

The Degree Course is entirely taught in English

COURSE SUMMARY

The course aims to put the student in a position to understand the mathematical formulation of various models of applied sciences and financial mathematics which involve stochastic differential equations. The course uses probabilistic concepts and tools that are developed in the course ``Probability Theory'' and elements of Functional Analysis (see ``Analysis''); these concepts are briefly mentioned in the first lectures. The proofs of the main results of the course are carried out completely. They show important links between Analysis and Probability. To improve the skills of reading and study the teacher proposes the reading of some scientific articles. Together with the course ``Stochastic Processes'' it suggests an approach to the research in stochastic environments. The course also provides basic concepts on parabolic equations of Kolmogorov type.

LEARNING OBJECTIVES

N/D

VISITING PROFESSOR PROFILE

The Visiting Professor will be an internationally recognised scholar with an established track of high-quality research output on international journals on topics coherent with the course contents.

CONTACT PERSON AT THE DEPARTMENT

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