Module: Stochastic processes

Lecturer: dr inż. Monika Maj

Semester: Winter/Summer

Hours: 15

Type: Classes

Credit: Paper

ECTS: 6

Stochastic processes with continous and discrete time, trajectories and n-dimensional distribution. L2 space. Kolmogorow theorem about correspondene. Process characteristics. Divagation by straight. Wiener process –properties. Stochastic analysis, Ito integral, Itô formula. Stochastic differential equations, applications in finance, technical and natura science. Girsanow theorem. Martingales. Black –Scholes model. Poisson process. Markow property.