Course Name	Stochastic processes
Contents and Objectives	Content: • Markov chains in discrete and continuous time • Poisson process, renewal theory • Martingales in discrete time • Gaussian processes and Brownian motion • Construction of stochastic processes and path properties Objectives: Knowledge of several classes of stochastic processes and their limit behavior, skills in modelling time dependent random phenomena by stochastic processes
Teaching	This course consists of lectures and exercise classes. • Lecture: Stochastic processes (4h/week) • Exercise class: Stochastic processes (2h/week) This class can be taught remotely.
Prerequisites	Stochastics
Verwendbarkeit des Moduls	-
Examination	Oral exam (30 minutes)
Credits	8 ECTS points
Frequency	This course is given at least once in 2 year.
Workload	The estimated total working time for this course is 240 hours.
Duration	This course is given during one semester.