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Universität Ulm

Master of Science Physics (PO 2017)

Stochastic Approaches to Dynamical Phenomena in Physics and Economics

Code	8812874298
ECTS credits	3
Attendance time	2
Language of instruction	English
Duration	1 Semester
Cycle	each Summer Semester
Coordinator	Dean of Physics Studies
Instructor(s)	PD Dr. Jürgen Stockburger
Allocation of study programmes	Physics M.Sc., elective module, 1st or 2nd Semester Wirtschaftsphysik M.Sc., elective module, 1st or 2nd Semester Wirtschaftsphysik B.Sc., elective module, 5th or 3rd Semester
Recommended prerequisites	None
Learning objectives	Students who successfully pass this module • know formal methods of stochastic approaches in physics and economics • are able to apply the stochastic methods to dynamical problems
Syllabus	The lecture is structured as follow: Week 1: fundamentals (lecture) Week 2: fundamentals (lecture) Week 3: exercise Week 4: physical applications (lecture) Week 5: economical applications (lecture), presentation topics Week 6: individual discussion of the presentation topics From week 7 on: presentations or seminar

Literature	Will be announced during the lecture
Teaching and learning methods	Lecture (2 h/week)
Workload	30 h Lecture (Attendance) 60 h Self study and exam preparation Total: 90 h
Assessment	The credit points will be awarded once the oral exam has been passed. No prerequisites are necessary for exam registration.
Grading procedure	The grade of the module will be the grade of the exam.
Basis for	Research in Econophysics