

Study programmes: PhD studies – Mathematics – Analysis and differential equations			
Course name: 3M144 Pseudodifferential operators			
Lecturers: Miloš Arsenović			
Status: Optional			
ECTS: 9			
Attendance prerequisites: -			
Course aims: Mastering of notions and methods of pseudodifferential operators.			
Course outcome: Student should understand and be able to apply notions and techniques of pseudodifferential operators.			
Course content: Oscillatory Integrals. Classical pseudodifferential operators. Construction of parametrix for elliptic operators. Pseudodifferential operators on manifolds. Gårding's inequality. Fourier integral operators. Application to hyperbolic equations and propagation of singularity.			
Literature:			
1. M. Shubin: Pseudodifferential operators and spectral theory.			
2. M. Taylor: Pseudodifferential operators.			
Number of hours: 10	Lectures: 4	Research: 6	
Teaching and learning methods: Frontal / Individual / Research			
Assessment (maximal 100 points)			
Course assignments	Points	Final exam	points
Lectures		Written exam	
Exercises / Tutorials	50	Oral exam	50
Colloquia		Written-oral exam	
Essay / Project			