Level:   PhD     Course title: Nonlinear PDEs (AN-07)     Lecturer: Marko Ž. Nedeljkov     Status: elective     ECTS: 10     Requirements: Linear PDEs     Learning objectives     Basic techniques of hyperbolic conservation law systems     Method in the systems and solving Riemann and Cauchy problems     Syllabus     Theoretical instruction     Hyperbolic systems and entropy functionals. Continuum physics models and balance laws. Entropic solutions to Riemann problem, shock waves. Initial data for 1-D systems.     Literature     1. C.M. Dafermos, Hyperbolic Conservation Laws in Continuum Physics, IV ed, Springer 2009   2. A. Bressan, Hyperbolic System of Conservation Laws, Oxford, 2002.     Weekly teaching load   Other: 0     Lectures:   Exercises   Other forms of teaching:   Student research: 2   0     1   Echning methodology   Freading method (maximal number of points 100)   Pre-exam obligations   points	Study programme(s): Mathematics PhD						
Lecturer: Marko Ž. Nedeljkov     Status: elective     ECTS: 10     Requirements: Linear PDEs     Learning objectives     Basic techniques of hyperbolic conservation law systems     Learning outcomes     Understanding of basica analysis of conservation law systems and solving Riemann and Cauchy problems     Syllabus     Theoretical instruction     Hyperbolic systems and entropy functionals. Continuum physics models and balance laws. Entropic solutions to Riemann problem, shock waves. Initial data for 1-D systems.     Literature     1. C.M. Dafermos, Hyperbolic Conservation Laws in Continuum Physics, IV ed, Springer 2009     2. A. Bressan, Hyperbolic system of Conservation Laws, Oxford, 2002.     Weekly teaching load     Other roms of teaching:     2   :     Grading method (maximal number of points 100)     Pre-exam obligations							
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