Course: Geodesic mappings

Teacher(s): Mića Stanković, Milan Zlatanović

Course status: elective

ECTS: 12

Prerequisites: None

Goal: Mastering the theory of geodesic and almost geodetic mappings of Riemann spaces, generalized Riemann spaces and spaces of affine connection. Introduction to mappings of Keller and other spaces.

Overcomes: The student is able to successfully master the fundamental theorems of the theory of geodetic, almost geodetic, holomorphic projective conforms and other mappings.

Contents

Theoretical lectures

- 1. Introductory terms. Tensor analysis. Spaces of affine connection. Riemannian spaces. Generalized Riemannian spaces. Kahler spaces.
- 2. Geodesic mappings of Riemannian spaces.
- 3. Geodesic mappings of special spaces
- 4. Geodesic mappings of generalized Riemannian spaces.
- 5. Almost geodetic mappings of Riemannian and generalized Riemannian spaces
- 6. Holomorphically projective mappings of Kahler and generalized Kahler spaces

Recommended bibliography

- 1. M. S. Stanković, Some mappings of the spaces of nonsymmetric affine connection, University of Niš, Faculty of Sciences and Mathematics, doctoral dissertation, 2001.
- 2. S. M. Minčić, M. S. Stanković, Lj.S. Velimirović, Generalized Riemannian spaces and spaces of non-symmetric affine connection, Faculty of Science and Mathematics, Niš, 2013.
- 3. N. S. Sinyukov, Geodesic Mappings of Riemannian Spaces, Science, Moscow, 1979.
- 4. J. Mikeš, Geodesic, F-planar and holomorphically projective mappings of Riemannian and affinely connected spaces, Univ. Palacki, Faculty of Natural Sciences, Doctoral dissertation.
- 5. S.M. Minčić, Generalized Riemann Spaces, Doctoral dissertation, 1976.

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Number of classes per	Theoretical: 4	Practical:		
week				
Methods of teaching				
Theoretical lectures and independent work of students during practical hours.				
Knowledge estimation (max 100 points)				
50 points on pre-exam and 50 points on oral exam				