

Problems
Spring 2018, masters

1. Geodesic curve. Equations, theorem of existence and uniqueness. Classical examples.
2. Geodesic surface of rotator, theorem of Kleró.
3. Measure of Liouville, geodesic.
4. Cards, transformation functions(transformation of coordinates). Examples of maps: ring(three maps), sphere(2 maps), $\mathbb{R}P^2$, $\mathbb{R}P^n$, $Gr(4, 2)$.
5. Smooth function on manifold. Coordinate transformation functions. Examples of smooth functions and examples of not smooth functions.
- 6.