

**CLOSURE OF CLASSES OF MAPPINGS WITH
BOUNDED DISTORTION ON CARNOT GROUPS***C. K. Vodop'yanov*

It is known that the limit of a locally uniformly convergent sequence of analytic functions is an analytic function. Yu. G. Reshetnyak obtained a natural generalization of this result in the theory of mappings with bounded distortion: the limit of a locally uniformly convergent sequence of mappings with bounded distortion is a mapping with bounded distortion. The present article is devoted to extending this result to non-holonomic structures. As a model, we consider the geometry of Carnot groups. Since the geometry of these groups is non-Riemannian, there appear some constraints on applying analytic tools for groups. In particular, at present the method of the proof by Yu. G. Reshetnyak for the above-mentioned result cannot be implemented for Carnot groups. We give a method of proving the closure theorem which is new also for Euclidean space.

Key words and phrases: nilpotent group, mapping with bounded distortion.

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