

**A POINTWISE SELECTION PRINCIPLE
FOR FUNCTIONS OF A SINGLE VARIABLE
WITH VALUES IN A UNIFORM SPACE***V. V. Chistyakov*

Given a sequence of functions, from a subset of the real line into a Hausdorff uniform space, we present a new sufficient condition for the sequence to contain a pointwise convergent subsequence. This new condition is much more weaker than the available conditions on the boundedness of generalized variations of functions, and reads in terms of some growth of moduli of variation of the functions of the sequence. Moreover, using the notion of the moduli of variation we study proper functions (i. e. those having one-sided left and right limits at each point) with respect to a dense subset and show that the Helly type selection principles involving the boundedness of generalized variations of the functions of the sequence, which are new in the context of functions with values in a uniform space, are consequences of our main result on the existence of a pointwise convergent subsequence.

Key words and phrases: moduli of variation, selection principle, pointwise convergence, proper function with respect to a dense set, uniform space, generalized variation.

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