Successive approximation technique for investigation of solutions of some linear boundary value problems for functional-differential equations with special deviation of argument

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Abstract. We suggest successive approximation techniques for studying two-point boundary value problems for linear differential equations with argument deviations. We refine of certain estimates related to the convergence analysis of successive approximations in the cases where argument deviations possess certain special properties.

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1. Introduction

In studies of solutions of various types of boundary value problems for ordinary and functional differential equations, it is often useful to possess appropriate techniques based upon some types of successive approximations constructed in an analytic form. To this class of methods belongs, in particular, the approach suggested in [1–3]. The

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