ON AN INTEGRO–DIFFERENTIAL EQUATION OF ARBITRARY
(FRACTIONAL) ORDERS WITH NONLOCAL INTEGRAL
AND INFINITE–POINT BOUNDARY CONDITIONS

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Abstract. In this paper, we study the existence and uniqueness of solutions for an integro–
differential equation of arbitrary (fractional) orders with nonlocal integral and infinite-point
boundary conditions, continuous dependence of the solution on nonlocal data, on initial condi-
tion and on functional equation also will be study. An examples to prove main results.


Keywords and phrases: Functional equations, existence of solutions, continuous dependence, fractional–
order, boundary value problem, infinite point condition, Liouville–Caputo fractional derivative.

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