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Existence of solutions of generalized fractional differential equation with nonlocal initial condition

Sandeep P. Bhairat, Dnyanoba-Bhaurao Dhaigude

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Abstract: This paper is devoted to studying the existence of solutions of a nonlocal initial value problem involving generalized Katugampola fractional derivative. By using fixed point theorems, the results are obtained in weighted space of continuous functions. Illustrative examples are also given.

Keywords: fractional derivative; fractional integral; existence of solution; fractional differential equation; fixed point theorem

Classification MSC: 26A33, 34A08, 34A12, 47H10

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Affiliations: *Sandeep P. Bhairat* (corresponding author), Department of Mathematics, Institute of Chemical Technology, Nathalal Parekh Marg, Matunga, Mumbai 400 019, India, e-mail: sp.bhairat@ictmumbai.edu.in; *Dnyanoba-Bhaurao Dhaigude*, Department of Mathematics, Dr. Babasaheb Ambedkar Marathwada University, University Campus, Near Soneri Mahal, Jaisingpura, Aurangabad 431 004, India

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