New method for solving system of P.F.D.E. and fractional evolution disturbance equation of distributed order

A. Aghili *
Department of Mathematics
Faculty of Sciences
University of Guilan
P.O. Box 1914
Rasht, Iran

A. Ansari †
Department of Mathematics
Faculty of Sciences
University of Guilan
P.O. Box 1914
Rasht, Iran

Abstract
In the present paper, authors develop the operational calculus of the $\mathcal{L}_A$-transform and show how this transform can be applied for solving singular integral equations of convolution-type or Wright function kernels. Also, we use the $\mathcal{L}_A$-transform for solving the system of fractional diffusion equation on fractals and the fractional evolution disturbance equation of distributed order, and express the fundamental solutions of these equations in term of of the Wright functions.

Keywords and phrases: The $\mathcal{L}_A$-transform, singular integral equation, fractional diffusion equation, fractional disturbance equation, Wright function.

1. Introduction
In recent years, many authors investigated on linear partial fractional differential equations (LPFDEs) to describe the modeling of many physical and engineering phenomena [12], [15-17], [20]. Mathematical aspects

*E-mail: arman.aghili@gmail.com
†E-mail: alirezaansariben@gmail.com

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