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An Attractive Approach Associated with Transform Functions for Solving Certain Fractional Swift-Hohenberg Equation

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ear fractional partial at these phenomena. In the ear time-fractional Swift- technique, named the Laplace atives. The proposed e transform operator, which ps for the fractional series comparing with the classical ing the coefficient expansion. To test the simplicity, performance, and applicability of the present method, three numerical problems of the time-fractional Swift-Hohenberg initial value problems are considered. The impact of the fractional order beta on the behavior of the approximate solutions at fixed bifurcation parameter is shown graphically and numerically. Obtained results emphasized that the LRPS technique is an easy, efficient, and speed approach for the exact description of the linear and nonlinear time-fractional models that arise in natural sciences.

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