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# AN OPTICAL SOLITON SOLUTIONS OF THE TIME FRACTIONAL PERTURBED GERDJIKOV-IVANOV EQUATION

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## ABSTRACT

The fractional perturbed Gerdjikov-Ivanov equation has an important place in examining the effects of optical pulse propagation. It is investigated in this study. The method called (G') extension is used for solving conformable time fractional derivative Gerdjikov-Ivanov equation. With the proposed method, there is an optical soliton solutions that are important place in mathematical physics. These solutions have been found and graphical representation is provided for some special values by using mathematical programming.

**Keywords** Gerdjikov-Ivanov equation · conformable derivative · G' extension method

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