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**A new method for constructing exact solutions for a time-fractional differential equation.**

(English) [Zbl 07159291](#)

[Comput. Methods Differ. Equ. 8, No. 1, 194-204 \(2020\)](#).

Summary: In the present paper, the process of finding new solutions from previous solutions of a given fractional differential equation (FDE) is considered. For this issue, first we should construct an exact solution by using the symmetry operators of the equation. Then, the commutator brackets of the obtained operators give new solutions from old ones via a systematic method.

**MSC:**

[34A08](#) Fractional ordinary differential equations and fractional differential inclusions

[34C14](#) Symmetries, invariants of ordinary differential equations

[26A33](#) Fractional derivatives and integrals

**Keywords:**

[Lie point symmetry](#); [fractional calculus](#); [fractional differential equation](#); [exact solution](#)

**Full Text:** [DOI](#)

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