

# On the Convergence of Two Collocation Type Methods for Fractional Differential Equations

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## Abstract

A class of linear fractional differential equations with Caputo-type differential operators is considered. By using suitable integral equation reformulations, two high-order numerical methods for finding approximate solutions is discussed. The convergence behaviour of the proposed algorithms is established and global error estimates are derived. Some numerical illustrations for the verification of theoretical results is also presented. This contribution is based on the works [1-4].

## References

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- [3] Q. Huang, M. Wang, *Superconvergence of interpolated collocation solutions for weakly singular Volterra integral equations of the second kind*, Comput. Appl. Math. 40 (2021), 1–18.
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