ABOUT THE RIGHT FRACTIONAL LOCAL GENERAL $M$-DERIVATIVE

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Abstract. Here is introduced and studied the right fractional local general $M$-derivative of various orders. All basic properties of an ordinary derivative are established here. We also define the corresponding right fractional $M$-integrals. Important theorems are established such as: the inversion theorem, the fundamental theorem of fractional calculus, the mean value theorem, the extended mean value theorem, the right fractional Taylor’s formula with integral remainder, the integration by parts. Our right fractional derivative complements the alternative fractional derivative and the local $M$-fractional derivative.

References


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