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INTERNAL BLOOD PRESSURE DYNAMICS: MODELING WITH INCOMPLETE ℵ-FUNCTION AND FRACTIONAL OPERATOR

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Abstract. In the present paper, we have illustrated an approach to showcase the practical applications of special functions and fractional calculus. Using Caputo fractional derivative and incomplete ℵ-function, we have examined the blood pressure in the human body. In this paper, we establish an equation of internal blood pressure about the incomplete ℵ-function. A few new and exciting cases regarding various special functions have also been obtained. The results established in this study are general and show several significant and unique results in the relevant terms of the parameters involved.

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