DOUBLE SHEHU TRANSFORM FOR
TIME SCALES WITH APPLICATIONS

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Abstract. The classical Shehu transform is an the important integral transform used for solving differential and integral equations. The transform has already been extended for time scales. In this paper, we studied the double Shehu transform for time scales and solve partial and integro dynamic equations without converting them into an ordinary dynamic equation. The existence condition for the double Shehu transform is given. Further, some elementary properties, and the convolution theorem are discussed. Finally, applications are given for solving partial dynamic and integro-dynamic equations through examples.

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