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Existence of periodic solutions for delay differential equations on time scales

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In this work, we use the fixed-point theorem to prove the existence of periodic solutions of differential equtions with delay on time scales. We present some conditions which our solutions are positive and periodic. The main results are illustrated with several examples.

References

[1] D.R. Smart, Fixed Point Theorems, in: Cambridge Tracts in Mathematics, vol. 66, Cambridge University Press, London, New York, 1974.

[2] X. Lin, W. Li, Existence and uniqueness of positive periodic solutions of functional differential equations, J. Math. Anal. Appl. 293 (2004) 2839.

[3] Z. Jin, H.Wang, A note on positive periodic solutions of delayed differential equations, Appl. Math. Lett. 23 (2010) 581584.