

# Ważewski's method for discrete equations

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Behavior of solutions of a dynamic system

$$u^\Delta = f(t, u)$$

where  $f: T \times R^n \rightarrow R^n$ ,  $T$  is a time scale and  $f$  is a continuous mapping is discussed. Our aim is to establish sufficient conditions on the right-hand side of the given system guaranteeing the existence of at least one solution defined on  $T$  with prescribed asymptotic properties. The main result generalizes some previous results concerning the asymptotic behavior of solutions of discrete equations. Results are extended to delay dynamic equations on time scales.

## References

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- [2] *J. Diblík, J. Vítovec*: Bounded solutions of delay dynamic equations on time scales. *Adv. Differ. Equ.* **2012** 2012:183, doi:10.1186/1687-1847-2012-183, 1–9.