A note on "Numerical solutions of fuzzy differential equations by extended Runge– Kutta-like formulae of order 4"

ABSTRACT

In this note we show that the example presented in a recent paper by Ghazanfari et al. is incorrect. Namely, the "exact solution" suggested by the authors is not solution of the given fuzzy differential equation (FDE). Indeed, the authors have proposed an exact solution which is independent from the initial condition. So, we obtain the correct exact solution using the characterization theorem proposed by Bede et al. under Seikkala differentiability. Also, some details are given for the mentioned example.

Keyword: Fuzzy differential equations; Bede's characterization theorem; Seikkala differentiability.