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Step method for a functional-differential equation in Banach space

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ABSTRACT.

Let $(X, \|\cdot\|)$ be a Banach space. Consider the following equation:

$$x'(t) = K(t, x(t), x(\lambda t), x(t-h)), \quad t \in [0, b],\ h > 0,\ 0 < \lambda < 1,$$

where $K \in C([0, b] \times X^3, X)$. By using the step method we obtain existence results for the solution of this equation.

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