



## **MAXIMAL SOLUTION OF NON CLASSICAL DIFFERENTIAL EQUATION ASSOCIATED WITH KURZWEIL EQUATIONS**

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### **ABSTRACT**

We prove some new results on existence of solutions to first-order non classical ordinary differential equations associated with Kurzweil equations. Our existence results lean on new definitions of lower and upper solutions introduced in this article. The existence of a maximal solution is guaranteed when the local uniqueness property in the future is established. These results could be of great value in applications to the theory of non classical differential equations in locally convex spaces.

**KEYWORDS:** Differential Equations, Maximal Solution, Kurzweil Equations