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**Muhammad N Islam\*** (mislam1@udayton.edu), Department of Mathematics, Dayton, OH 45469-2316. *Asymptotic stability of non-unique solutions of differential equations by fixed point theory.* Preliminary report.

We consider an initial value problem of a first order nonlinear differential equation. We assume that this problem can have more than one solution. We study a new type of stability property of these solutions employing fixed point theory. The stability that we studied in this paper is different from the standard Liapunov stability, which is commonly studied by Liapunov's direct method. (Received May 11, 2017)