

REVIEWER'S REPORT

Manuscript No.: IJAR-55582

**Title: GLOBAL ATTRCTIVITY AND POSITIVITY SOLUTIONS FOR
NONLINEAR FUNCTIONAL DIFFERENTIAL EQUATIONS WITH
MEASURES OF NONCOMPACTNESS**

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		Good		
Techn. Quality		Good		
Clarity		Good		
Significance		Good		

Reviewer Name: Dr. Sumathi

Detailed Reviewer's Report

- Global attractivity describes a system's tendency for all its states or solutions, regardless of their starting point, to converge towards a specific equilibrium point or set (an attractor) as time goes to infinity, often studied in mathematics (dynamical systems, differential equations) to understand long-term behavior, and in economics (Global Attractiveness Index) as a measure of a nation's ability to attract resources. It signifies that a system is "globally" stable or desirable, rather than just locally.**
- Global attractivity and positivity, common terms in mathematical modeling (especially for population dynamics), describe how solutions of a system (like difference or differential equations) behave over time, specifically if they converge to a stable, non-negative (positive) state or equilibrium point, regardless of initial conditions, ensuring long-term stability and realistic predictions for things like population sizes. Positivity ensures solutions stay physically meaningful (e.g., populations can't be negative), while global attractivity means *all* positive solutions eventually reach that specific positive equilibrium.**

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3. Non-compactness describes a space or set that fails the definition of compactness, meaning it's not "small" and "closed" enough; in topology, it's a set where you can find an infinite collection of open sets covering it, but no finite subset of those sets covers it.
4. In simpler terms, non-compact sets are often unbounded (like the set of all real numbers) or not closed (like an open interval), failing the key conditions needed for compactness, especially the requirement that all convergent sequences within the set must have their limits also within the set.
5. Key words must be needed.
6. Only given theoretical part with equations.
7. Need to give clearly with results, discussion, summary, conclusion.
8. After those corrections good to publish in your journal.