

Review of: "Visualizing the Contraction Mapping Theorem"

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This paper addresses the visualizing of the process of value function iteration and clarifying the conditions for convergence. The author provides a clear and thorough explanation of basic concepts such as metric spaces, complete metric spaces, and the contraction mapping theorem. The topic is, of course, of interest to graduate students in Economics and applied mathematics. The structure is well-organized. However, some issues should be further considered.

1. The theorems rely on the assumption that the metric space (V,d) is complete. However, many practical applications may involve incomplete metric spaces, limiting the direct applicability of the theorems in such contexts.
2. The convergence rate β^n in the iterates of T is contingent upon the modulus β . However, this rate may vary significantly depending on the choice of β , leading to potential convergence issues in practice if the value of β is poorly chosen or difficult to determine.
3. Can these theorems be applicable to a network of interconnected systems?
4. The paper's sentence structure could be simplified for greater clarity. To enhance the paper's coherence and facilitate the logical flow of ideas, it is advisable to bolster the utilization of transition words and phrases between paragraphs and sections. This technical adjustment will improve the readability of the document and assist readers in navigating through the sequential development of concepts.

These minor suggestions aim to enhance the paper's mathematical clarity and English writing style without significantly altering its content or overall structure.