

Review Form 1.7

Journal Name:	Asian Research Journal of Mathematics
Manuscript Number:	Ms_ARJOM_105967
Title of the Manuscript:	Properties and Convergence Analysis of Orthogonal Polynomials, Reproducing Kernels, and Bases in Hilbert Spaces Associated with Norm-Attainable Operators
Type of the Article	Review Article

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> Is the manuscript important for scientific community? (Please write few sentences on this manuscript) Is the title of the article suitable? (If not please suggest an alternative title) Is the abstract of the article comprehensive? Are subsections and structure of the manuscript appropriate? Do you think the manuscript is scientifically correct? Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>Paper Title: Properties and Convergence Analysis of Orthogonal Polynomials, Reproducing Kernels, and Bases in Hilbert Spaces Associated with Norm-Attainable Operators</p> <p>The paper titled "Properties and Convergence Analysis of Orthogonal Polynomials, Reproducing Kernels, and Bases in Hilbert Spaces Associated with Norm-Attainable Operators" presents a detailed investigation into the properties and convergence behavior of orthogonal polynomials, reproducing kernels, and bases within the framework of Hilbert spaces that are linked to norm-attainable operators.</p> <p>The authors explore the intricate relationships among these mathematical entities, contributing significantly to the field of functional analysis. The paper is well-structured, mathematically rigorous, and offers insightful findings that extend our understanding of these important concepts.</p> <p>As Strengths: The authors provide an in-depth analysis of the interplay between orthogonal polynomials, reproducing kernels, and bases. Their exploration covers a wide spectrum of mathematical concepts, showcasing their comprehensive understanding of the subject matter. The logical progression of the paper aids in guiding the reader through the intricate mathematical derivations and arguments. Theorems are meticulously stated and supported by well-constructed proofs, ensuring the validity of the presented results. The unique insights garnered from this analysis contribute to advancing the boundaries of knowledge.</p> <p>Need Improvement (Minor)</p> <p>Introducing concrete examples or applications could enhance the paper's accessibility and aid in illustrating the practical significance of the theoretical findings to a broader audience.</p> <p>While the notation is generally clear, attention to complex subscripts, superscripts, and symbols could further enhance readability and prevent potential confusion.</p> <p>It would be valuable to contextualize the contributions of this paper by comparing them with existing literature. Highlighting the distinctiveness of the presented results can provide a better understanding of their significance.</p> <p>The authors' commitment to mathematical rigor, lucid presentation, and original insights enhance the academic discourse in the realm of functional analysis. Addressing the suggested improvements would further augment the paper's accessibility and potential impact. With its valuable contributions, I recommend this paper for publication as it advances our understanding of these critical mathematical concepts and their interconnections.</p> <p>Some references where given as follows can be added to this paper:</p>	

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	<p>1. Özen ÖZER, 2023, A Note on a Special Metric Space with Triple Fixed Points, OKU Journal of The Institute of Science and Technology, 6(2): 1285-1295, 2023.</p> <p>2. A.REFICE, Özen ÖZER, M. S. SQUID, 2023, Boundary Value Problem Of Caputo Fractional Differential Equations Of Variable Order, TWMS J. App. and Eng. Math. V.13, N.3, 2023, pp. 1053-1068.</p>	
Minor REVISION comments		
1. Is language/English quality of the article suitable for scholarly communications?		
Optional/General comments		

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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