

Review Form 1.7

Journal Name:	Asian Research Journal of Mathematics
Manuscript Number:	Ms_ARJOM_113722
Title of the Manuscript:	Analysis of Norm-Attainability and Convergence Properties of Orthogonal Polynomials in Weighted Sobolev Spaces.
Type of the Article	

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> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>1. Somewhat. This research paper deals with the norm-attainability of orthogonal polynomials. It highlights the conditions under which the norm of orthogonal polynomials can be attained.</p> <p>2. Yes</p> <p>3. Yes</p> <p>4. No. Statement of Theorem 1 is the same as the statement of Theorem 5. Same is true for Theorems 2 and 6, 3 and 7, 4 and 8.</p> <p>5. No. <ul style="list-style-type: none"> Including definitions of Hilbert spaces, Sobolev spaces and other relevant information will benefit the article Theorem 2 is referred to as Sobolev Embedding Theorem. Later, Theorem 2 is referred in the proof of Theorem 6. However, as Theorems 2 and 6 are the same, we have the logical collision. Classical definition of the inner product features conjugated functions, but in the article, this is never mentioned Definition of Theorem 12 mentions the fact that for Sobolev spaces there exists a sequence of functions f_k such that $f_k \rightarrow f$. This fact should be mentioned prior, for example, in the introduction section. Theorem 15 mentions Riesz Representation Theorem in its proof, but the statement of this Theorem is never mentioned not referenced. Sturm-Liouville eigenvalue problem is mentioned but is insufficiently described. Same for Weierstrass Approximation Theorem in the proof of Theorem 1 </p> <p>6. No. The first article in the references is not presented on the site of Journal of Mathematical Analysis and Applications</p>	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	Yes.	
<p>Optional/General comments</p>	The paper will benefit from the structure and presentation revision.	

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PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
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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