# **Review Form 1.7**

| Journal Name:            | Journal of Advances in Mathematics and Computer Science                                                                |
|--------------------------|------------------------------------------------------------------------------------------------------------------------|
| Manuscript Number:       | Ms_JAMCS_110122                                                                                                        |
| Title of the Manuscript: | COMPARATIVE STUDY OF THE SBA AND MOL METHODS. APPLICATION TO SOME SYSTEMS OF NONLINEAR PARTIAL DIFFERENTIAL EQUATIONS. |
| 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) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Compulsory</u> REVISION comments                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                               |
| <ol> <li>Is the manuscript important for scientific community?         (Please write few sentences on this manuscript)</li> <li>Is the title of the article suitable?         (If not please suggest an alternative title)</li> </ol> | <ol> <li>Yes, this analysis is important to scientific community because it can be applied to system of non-linear PDEs. The presented work establishes a connection between some partial differential equations with the ordinary differential equations by discretization of a few independent variables.</li> <li>Yes.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                               |
| (ii not please suggest an alternative title)                                                                                                                                                                                          | 2. 165.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                               |
| 3. Is the abstract of the article comprehensive?                                                                                                                                                                                      | 3. Yes, the abstract is well-written and comprehensive.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                               |
| 4. Are subsections and structure of the manuscript appropriate?                                                                                                                                                                       | 4. Yes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                               |
| 5. Do you think the manuscript is scientifically correct?                                                                                                                                                                             | 5. Yes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                               |
| 6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.                                                                                                      | 6. Yes, the references are sufficient and recent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                               |
| (Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                               |
| Minor REVISION comments                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                               |
| Is language/English quality of the article suitable for scholarly communications?                                                                                                                                                     | Yes, the quality of English language is suitable for scholarly communication. However, there are typo errors at many places so a careful review of the whole manuscript is needed. Likewise, space is missing at a few places while at the other double spacing is used.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                               |
| Optional/General comments                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                               |
|                                                                                                                                                                                                                                       | The presented work establishes a connection between some partial differential equations with the ordinary differential equations by discretization of a few independent variables. The technique adopted apparently is one of the power ones used to reduce the differential equations. The authors however need to address the following  1. For the second example comparison of the obtained results with the SBA is not given, it should be included.  2. In conclusion, there is a mention of FEM, FVM and the spectral method, while in the manuscript FDM is claimed to be engaged, this needs a clarification if the mentioned ones are also used (which apparently is not the case)  With the above changes the manuscript, is suitable for publication. |                                                                                                                                                                               |

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## PART 2:

|                                              |                                                                       | <b>Author's comment</b> (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? | (If yes, Kindly please write down the ethical issues here in details) |                                                                                                                                                                                      |

#### **Reviewer Details:**

| Name:                            | Safia Taj                                                |
|----------------------------------|----------------------------------------------------------|
| Department, University & Country | National University of Sciences and Technology, Pakistan |

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