



2018-2019 Mid-Term Credibility Plan Review

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#	Ten Simple Rules	REVIEWER #1		REVIEWER #2	
		Considered in the Credibility Plan?	Comments	Considered in the Credibility Plan?	Comments
1	Define context clearly	insufficient	Described context of the project not the model	sufficient	Context clearly defined
2	Use appropriate data	sufficient	Data collection by team but another example of not traceability – however, they are sharing data in journals	sufficient	Data clearly described. Supplementary material details types and availability to disseminate
3	Evaluate within context	sufficient	Seems they are invoking appropriate VVUQ	insufficient	Investigators focus on the reproducibility of the data, technically an appropriate data factor, rather than the evaluation of the model within application context.
4	List limitations explicitly	sufficient	Communication through publications	sufficient	Limitations noted, identified that more explicit descriptions are provided in publications.
5	Use version control	sufficient	Versioning for software applications	insufficient	Authors describe what is being version controlled, but do not indicate how this is being carried out. It does appear the group uses Github for version control, at least in some aspects denoted in the supplementary material.
6	Document adequately	sufficient	Using LAMMPS for documentation	sufficient	Documentation process is denoted and referenced.
7	Disseminate broadly	sufficient	Conferences, publications, and soon to share examples and tutorials.	sufficient	Models are disseminated via LLAMPS website. Unclear how feedback is acquired and assessed.
8	Get independent reviews	sufficient	Peer-review of manuscripts, in addition to sharing with independent researchers.	sufficient	Description sufficient to assess credibility status of this factor. Some specifics on the types of reviews would strengthen this factor.
9	Test competing implementations	sufficient	Using solvers with long historical use, and implemented codes on different platforms.	sufficient	Authors provide argument that the competing applications are well established and the need for this factor is minimal in the context of application
10	Conform to standards	sufficient	Using standard libraries for coding, and they format data for multiple platforms. No best practices mentioned regarding credibility.	sufficient	Standards followed to insure proper interface with other software



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General Comments

Reviewer 1:

None provided

Reviewer 2:

Thank you for providing a credibility plan update for review. Generally we assessed that sufficient information was communicated that most factors could be evaluated for credibility by an interested party looking to implement this investigation's modeling products. Areas where improvement in that communication can be obtained are in the evaluation factor, such as describing the nature of validation, verification and UQ testing, and in the description of model version control, where and how are model developments tracked (we suspect this is a GitHub implementations).