Department of Applied Mathematics Jack Baskin School of Engineering 1156 High Street, Mail Stop SOE2 Santa Cruz, CA 95064



Abhishek Halder Assistant Professor

August 15, 2022

Editor IEEE Transactions on Power Systems

Dear Editor,

Please find the revised version of the Manuscript ID TPWRS-01391-2021.R1 entitled "Stochastic Uncertainty Propagation in Power System Dynamics using Measure-valued Proximal Recursions" attached herein for consideration of publication in the *IEEE Transactions on Power Systems* as a regular research article. The revision addresses all comments from the AE and the reviewers obtained in the previous round. All corresponding changes in the revised manuscript are highlighted in blue. The accompanying rebuttal document details the itemized responses of the all the comments. We are indebted to the AE and the reviewers for their perceptive inputs to help improve the quality of the manuscript.

As the corresponding author, I note that at this stage of revision, 2 out of the 4 reviewers (Reviewers 1 and 2) were satisfied with the revisions made in the previous round. The Reviewer 4 found all her/his comments addressed but had some new clarification questions regarding the simulation, which we have addressed in this round.

However, reviewer 3, unfortunately seems completely unfamiliar with measure-valued proximal recursions and why the technical matter is simply not about replacing an SDE model with another. This is a methodological contribution, and the mathematics for what we did here did not exist even for the simple setting considered. While we have tried to respectfully answer and clarify all her/his confusions, this particular reviewer continues to make comments which simply does not make sense from a basic mathematical stochastic process perspective. Please look at our detailed responses to this reviewer in this round and in the previous round. In our opinion, this lack of mathematical understanding from reviewer's side, should not be brushed off as "because I cannot understand hence it must be irrelevant from engineering perspective". I do not think there is anything more we can do to convince this reviewer about the importance of this technical contribution. We rest the case to the Editors.

The manuscript is an original research article and has not been published or submitted in any other venue for publication.

Thank you for your kind consideration. I look forward to hear from you.

Sincerely,

Abhishek Halder

ahalder@ucsc.edu (979) 583 6070

http://abhishekhalder.org

bhishek Halden