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Editor
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Dear Editor,

Please find the manuscript 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. All authors have read the final manuscript and concur with its submission to this journal.

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

The main contribution of the article is that it formulates and solves an the problem of propagating the joint state probability density functions (PDFs) subject to exact nonlinear stochastic differential equations associated with the interconnected power system dynamics, using certain variation recursion on the manifold of joint PDFs. The resulting computation is gridless and approximates neither the dynamics nor the statistics. The development is built upon recent advances in understanding the geometry and generalized gradient flows on the infinite dimensional manifold of joint PDFs. The contribution breaks away from the existing literature in the sense it effectively "solves a PDE without solving a PDE". Realistic and synthetic power system simulation results are reported to demonstrate the scalability of the proposed approach.

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

Sincerely,

Abhishek Halder

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