

Authors second response to reviewers

February 27, 2024

On January 19, the authors provided a detailed response (12 PDF pages) to the reviewers' comments and questions. The response is archived as AC1 on the discussion tab of the paper's webpage entry. At that time no revised paper was uploaded to the journal's website. This was done assuming guidance, from reviewers and associate editor, would be provided on ways to address some of the points raised without extending too far beyond the typical length of a Brief communication. Note that while the paper was submitted as a Research article, it was re-classified as Brief communication by WES prior to review, which is acceptable to the authors.

The revised paper is now submitted. We believe this version addresses the main points raised by the reviewers. In particular, we have added an appendix with the key equations of the parameter estimation method used by LP-PIESC. This revised manuscript provides insight into the method and arguments to support the faster convergence of the LP-PIESC relative to more conventional extremum seeking control algorithms using dither perturbation and demodulation to extract the necessary gradient information. This insight is backed up by citing the original papers on PI-ESC and other supporting publications.

The revisions to the paper are all in blue font. The initial response to reviewers (AC1, January 19) has a point-by-point response to the reviewers' comments and questions.

Please note that the initial response AC1, submitted on January 19, has some technical material (including graphs) that is meant to answer reviewers' questions but cannot be included in the Brief communication due to space limitations.

Sincerely,

Devesh Kumar and Mario Rotea