Gmail afif rahman <afifrahman137@gmail.com>

Chaos: Receipt of Manuscript MS #CHA21-AR-VAD2021-00123R

1 message

cha-edoffice@aip.org <cha-edoffice@aip.org> Thu, Apr 1, 2021 at 11:45 PM
Reply-To: cha-edoffice@aip.org
To: r01a17@abdn.ac.uk
Cc: afifrahman137@gmail.com

Dear Mr. Afifurrahman,

On 01-Apr-2021, we received the manuscript entitled: "Collective dynamics in the presence of finite-width pulses". Your manuscript is assigned the Manuscript #CHA21-AR-VAD2021-00123R.

The order of the authors on your submitted manuscript is as follows: - Afifurrahman, Ekkehard Ullner, and Antonio Politi.
Please note that if this order is changed or if there are any deletions or additions of authors, each author must provide approval for this change.

Your manuscript is being processed by the editorial office. You will receive another email soon indicating whether your manuscript has passed the submission check or if modifications are needed before it can enter the editorial process.

Currently, our records indicate that the ORCID ID for your account is 0000-0002-3974-3245. You may use the link below if you need to update your ID:
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Thank you for submitting your work to Chaos: An Interdisciplinary Journal of Nonlinear Science.

Sincerely,

Kristen Overstreet
Peer Review Manager
Chaos Editorial Office
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Email

Manuscript #	CHA21-AR-VAD2021-00123
Title	The effect of pulse width on the dynamics of pulse-coupled oscillators
Corresponding Author	Mr. - Afifurrahman (Universitas Islam Negeri Mataram)
Date:	08-Mar-2021 14:05:05
Last Sent:	08-Mar-2021 14:05:05
Created By:	Redacted
From:	cha-edoffice@aip.org
To:	r01a17@abdn.ac.uk
CC:	Redacted
Subject:	Chaos: MS #CHA21-AR-VAD2021-00123 Decision Letter

Dear Mr. Afifurrahman,

Your manuscript, referenced below, has been reviewed for publication in Chaos: An Interdisciplinary Journal of Nonlinear Science:

"The effect of pulse width on the dynamics of pulse-coupled oscillators"

It has been determined, however, that further review and revision may be necessary. Please consult the reviewer's comments (below) for more information.

The revised manuscript is due no later than 29-Mar-2021.

Sincerely,

Prof. Juergen Kurths
Editor
Chaos

Revisions must be submitted in the proper file formats. Manuscripts should be in either MS Word or LaTeX format. Upload each figure separately if you did not already do so during the original submission (those figures will move forward with the revision). Acceptable figure file formats are PDF, TIF, EPS or PS. For detailed instructions go here: http://chaos.aip.org/chaos/submit.jsp

Your resubmission should include a letter with a point-by-point response to each referee comment. When responding to the points raised by reviewers, please be as specific as possible. As you address each point in your response letter, please indicate the manuscript page number where each correction or change was made. This will help the editor ensure that all reviewer concerns are adequately addressed and will also ensure that your manuscript is processed in a timely fashion.

Please use the URL below to submit your revision:

Link Not Available

Sincerely,

Kristen Overstreet
Peer Review Manager
Chaos Editorial Office

Manuscript #CHA21-AR-VAD2021-00123:

* Revised manuscript source files must be in Word or LaTeX/ReVTeX. Replace the current PDF file with an acceptable manuscript source file.

* Separate figure files (separate from text and tables) are required for production purposes. Submit a separate figure file for each figure cited in the manuscript, not just one file containing all figures. The allowed file formats for figure files are TIF, PS, EPS, JPEG, or high-quality PDF. Figures may remain embedded in the manuscript. Number your separate figure files as they appear in the manuscript. For example 1, 2, 3.
NOTE: DOC or DOCX figure files are not permitted.

Email

Reviewer Comments:
Reviewer #1 Evaluations:
Overall Rating: Publish with revision optional

Reviewer #1 (Comments to the Author):

This work analyzes the influence of spike width on the dynamics of an ensemble of (nearly) balanced leaky integrate-and-fire neurons. This scheme has been repeatedly studied in neuroscience since the seminal work by Van Vreeswijk and Sompolinsky (Ref. [5]). Later on, the distinction between different asynchronous regimes was highlighted by Ostojic in 2014 (Ref. [24]) attracting even more attention.

This particular paper is a natural continuation of a series of works already developed by the authors to clarify the conditions under which collective irregular dynamics emerge. Now, the role of the finite (and possibly different) width of excitatory and inhibitory pulses is under scrutiny, extending previous partial results in Ref. [22]

The results are mainly numerical, but informative and relevant. I recommend publication. Said that, I suggest the authors to make an additional iteration in the manuscript and improve its legibility. In its current form, the many of details in the model make it difficult to follow the paper without a solid background on the work developed (mainly by the authors) in previous works. Moreover, I found it hard to keep my attention along the text.

I ask the authors to consider the next points:

a) I think that the title could be more informative. Its current version is too generic, in my view. Maybe including the term "collective irregular dynamics" is a good idea.

b) The text does not clearly specify what is meant by CID. Apparently CID refers to any state different from full sync., full asynchrony (with 1/sqrt(N) scaling), or any other stationary states (e.g. clustering), irrespective of the value attained by the CV. Is that right? Probably it should be explicitly indicated that (only?) CID corresponds to 0<chi<1

c) The overbar on the coefficient of variations [Eq. (8)] is misleading, as it is used as a time average in Eq. (9).

d) The intention of Fig. 4 is not clear to me. Is there anything qualitatively new with respect to the Dirac pulses or the symmetric pulses? If yes, the other cases should be shown. If not, I would introduce this figure before, e.g. with symmetric pulses. It is more convenient to have a visual image of the network dynamics before.

e) The first sentence in the last paragraph of page 5 is confusing. I don't exactly see the irregular regime for beta<alpha; in particular rhythmic oscillations emerge. The sentence should more precisely state what is meant.

f) Page 7, 2nd column, "vs 10000^4" appears to be a typo.

g) Section VI starts claiming that "...clear evidence of a first-order phase transition, when either the pulse-width or the coupling strength is varied". Actually, the only case in which I see the evidence is in Fig. 5, but not in other cases (e.g. in Fig. 3).

h) Reference 13 does not study the dynamics of two populations, as asserted in the text.

Reviewer #2 Evaluations:
Overall Rating: Publish with revision required

See attached file

Email

Manuscript #	CHA21-AR-VAD2021-00123R
Title	Collective dynamics in the presence of finite-width pulses
Corresponding Author	Mr. - Afifurrahman (Universitas Islam Negeri Mataram)
Date:	02-Apr-2021 16:42:17
Last Sent:	02-Apr-2021 16:42:17
Created By:	Redacted
From:	cha-edoffice@aip.org
To:	r01a17@abdn.ac.uk
CC:	Redacted
Subject:	Chaos: MS #CHA21-AR-VAD2021-00123R Decision Letter

Email

Dear Mr. Afifurrahman,

I am pleased to inform you that your revised manuscript, referenced below, has been accepted for publication in Chaos: An Interdisciplinary Journal of Nonlinear Science and is tentatively scheduled for publication in the April, 2021 issue:

"Collective dynamics in the presence of finite-width pulses"

Sincerely,

Prof. Juergen Kurths
Editor
Chaos

When your manuscript enters the production process, you will receive an email from the Chaos production office with further instructions. Direct all questions pertaining to papers in the production process to the contact information supplied in that e-mail. Be sure to include your manuscript number (CHA21-AR-VAD2021-00123R) on all correspondence.

Please note that your manuscript will be evaluated during the production process to ensure that it meets the language standards for the journal. If your manuscript does not meet those standards you may be required to take further action before your paper can be published.

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Thank you for your contribution to Chaos: An Interdisciplinary Journal of Nonlinear Science. If you have any questions, feel free to contact us at cha-edoffice@aip.org.

Sincerely,

Kristen Overstreet
Peer Review Manager
Chaos Editorial Office
