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Synchronization analysis through coupling mechanism in realistic neural models

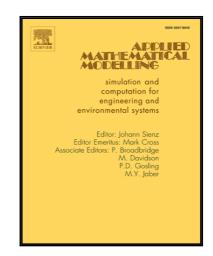
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PII: \$0307-904X(17)30113-0 DOI: 10.1016/j.apm.2017.02.017

Reference: APM 11605

To appear in: Applied Mathematical Modelling

Received date: 16 July 2015
Revised date: 12 January 2017
Accepted date: 9 February 2017



Please cite this article as: Ranjit Kumar Upadhyay, Argha Mondal, M.A. Aziz-Alaoui, Synchronization analysis through coupling mechanism in realistic neural models, *Applied Mathematical Modelling* (2017), doi: 10.1016/j.apm.2017.02.017

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#### ACCEPTED MANUSCRIPT

#### Highlights

- A general method of coupling for generalized synchronization in neural systems is investigated.
- Two non-identical 3D modified M-L neural models are used for OPCL coupling method.
- A bidirectional coupling function is seen in the neural system connecting through gap junctions.
- We present a bidirectional coupling mechanism for a network of four identical H-R neural system.
- ullet We investigate a NOLC based coupling mechanism through Lyapunov function stability criterion.

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