Accepted Manuscript

Synchronization stability of Riemann–Liouville fractional delay-coupled complex neural networks

Hai Zhang, Miaolin Ye, Renyu Ye, Jinde Cao

PII: S0378-4371(18)30604-6
DOI: https://doi.org/10.1016/j.physa.2018.05.060
Reference: PHYSA 19600

To appear in: *Physica A*

Received date : 29 January 2018
Revised date : 31 March 2018

Please cite this article as: H. Zhang, M. Ye, R. Ye, J. Cao, Synchronization stability of Riemann–Liouville fractional delay-coupled complex neural networks, *Physica A* (2018), https://doi.org/10.1016/j.physa.2018.05.060

*Highlights (for review)

Highlights (PHYSA 18260)

HIGHLIGHTS

- The constructed Lyapunov functional can avoid computing the fractional-order derivative to derive the synchronization stability conditions.
- The neuron activation functions in this paper are not necessarily required to be differential.
- The proposed results reveal the relationships between the stability of fractional-order isolated neural networks and the synchronization of delay-coupled complex neural networks.
- The proposed results bridge the stability theory of fractional-order neural network and synchronization theory of fractional-order coupled complex networks.