Accepted Manuscript

Evolutionary algorithm and modularity for detecting communities in networks

Saoud Bilal, Moussaoui Abdelouahab

PII: S0378-4371(17)30024-9
DOI: http://dx.doi.org/10.1016/j.physa.2017.01.018
Reference: PHYSA 17911

To appear in: *Physica A*

Received date: 11 July 2016
Revised date: 7 December 2016

Please cite this article as: S. Bilal, M. Abdelouahab, Evolutionary algorithm and modularity for detecting communities in networks, *Physica A* (2017), http://dx.doi.org/10.1016/j.physa.2017.01.018

Highlights

Title: Evolutionary Algorithm and modularity for Detecting Communities in Networks

Physica A

- In this paper, we introduce our method for community detection.
- Our method designed to detect community structure for unweighted and undirected networks.
- We used an evolutionary algorithm to find the first community structure.
- We used the modularity in the merging process to find the final community structure.
- Finally we test our method on both artificial and real networks.