

CONA User's Guide

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Given a partition generated by other non-overlapping community discovery method, CONA identifies overlapping nodes from boundary and inner node set in turn, and output a cover at last. The extent of overlap can be tuned by the threshold parameter p , which ranges from 0 to 1 and should not be too large or too small. 0.55 - 0.65 is recommended and its default value is 0.55 in our implementation.

In general, to run CONA:

windows: CONA_Windows_64.exe(or CONA_Windows_32.exe) -inf networkFile -ipf partitionFile [options]

linux: ./CONA_Linux_64(or CONA_Linux_32) -inf networkFile -ipf partitionFile [options]

option 1: -p 0.55.

Threshold parameter must be in (0,1).

option 2: -on2cf filename

Output n2c community file format : node and its communities in each line.

option 3: -oc2nf filename

Output c2n community file format: nodes of a community in each line.

Input and Output format

Input network file format : list of edges without weight and any additional information.

Input partition file format : pair of node and the community to which it belongs in each line, and there must be a blank between node and community.