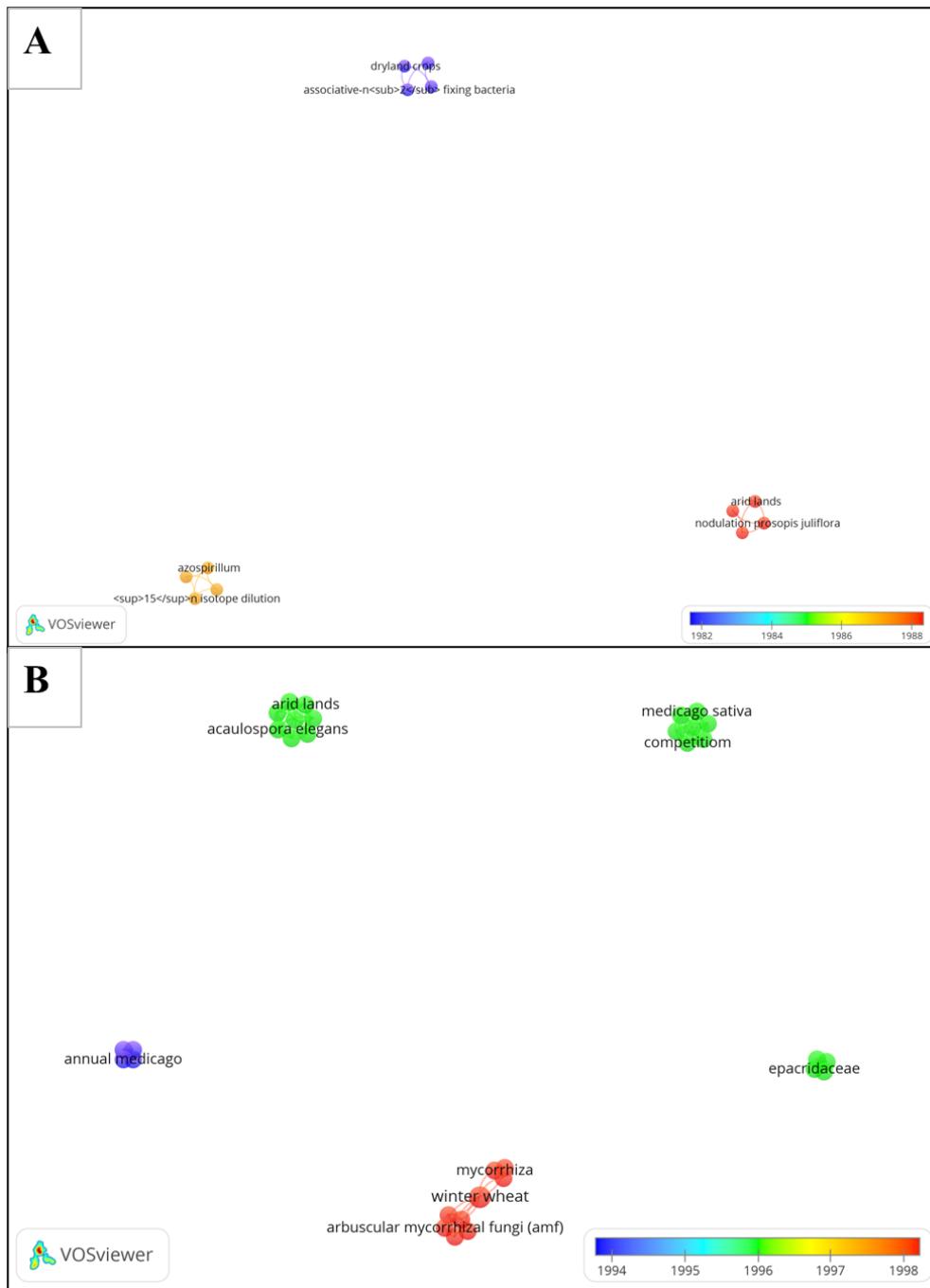


Supplementary Figures

Here, we provide information about bibliometric visualizations and modularity results (Louvain modularity algorithm ($\gamma \geq 1.0$)) that support the analyses we presented in the main manuscript. All Figures were generated from the Scopus and Dimensions datasets using VOSviewer (version 1.6.20) and Gephi (version 0.10.1). The analyses include co-occurrence, co-authorship, and citation networks constructed under varying keyword thresholds ($n \geq 1, 3, 5$) to test the robustness of clustering and thematic patterns. Decadal analyses (1980-2024) were conducted ($n \geq 1$ to capture long-term thematic evolution. There were instances we ran $n \geq 0$ or $n \geq 2$ where we could not run $n \geq 5$ due to technical impracticality. To mitigate redundancy, the supplementary Figures include only Figures not included in the main manuscript.

Decadal Keywords Co-Occurrence Networks Validation Using Dimension Dataset



Supplementary Figure S1: **A:** 1980-1989 Scopus temporal author keywords co-occurrence network ($n \geq 1$) | Items: 12 | Links: 18 | Total link strength: 18 | Clusters: 3. The digital version is accessible here <https://tinyurl.com/2dahlpj6>. **B:** 1990-1999 Scopus temporal author keywords co-occurrence network ($n \geq 1$) | Items: 32 | Links: 82 | Total link strength: 82 | Clusters: 5. The digital version is accessible here <https://tinyurl.com/28apq68s>. All keywords were shown regardless of whether they are connected to each other or not.

Modularity report for 1980-1989 Scopus Temporal keywords co-occurrence networks

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

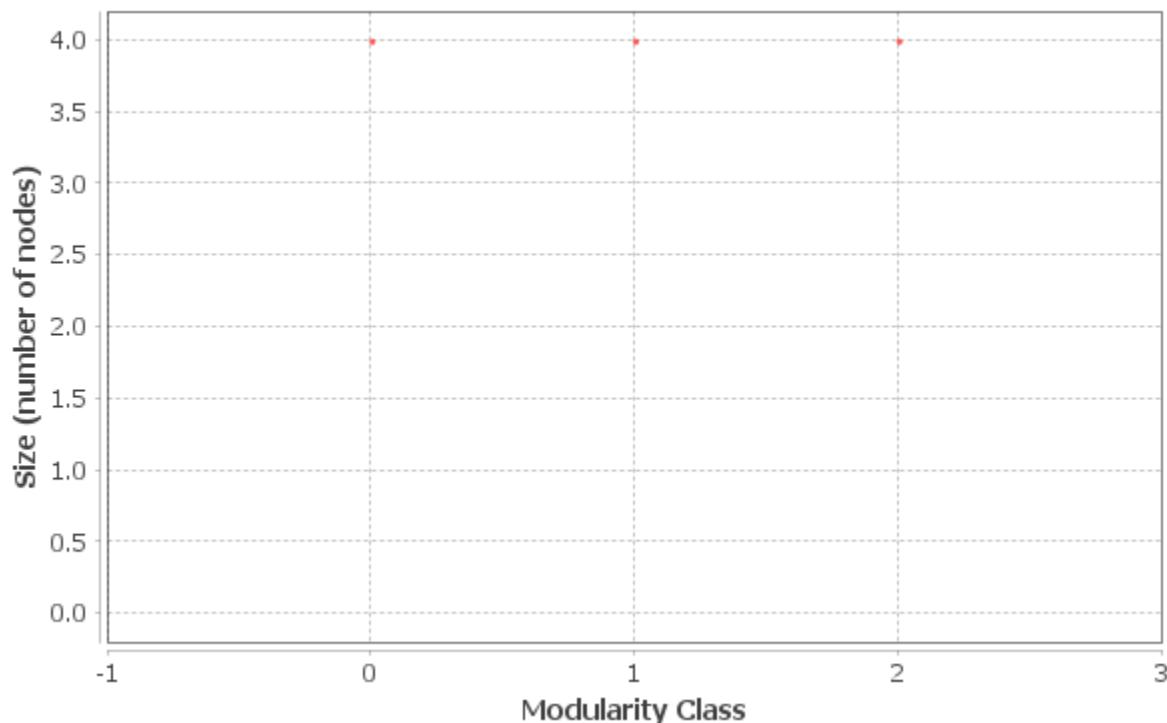
Results:

Modularity: 0.667

Modularity with resolution: 0.667

Number of Communities: 3

Size Distribution



Supplementary Figure S1C: Modularity report for 1980-1989 Scopus Temporal keywords co-occurrence networks

Modularity report for 1990-1999 Scopus Temporal keywords co-occurrence networks

Parameters:

Randomize: On

Use edge weights: On

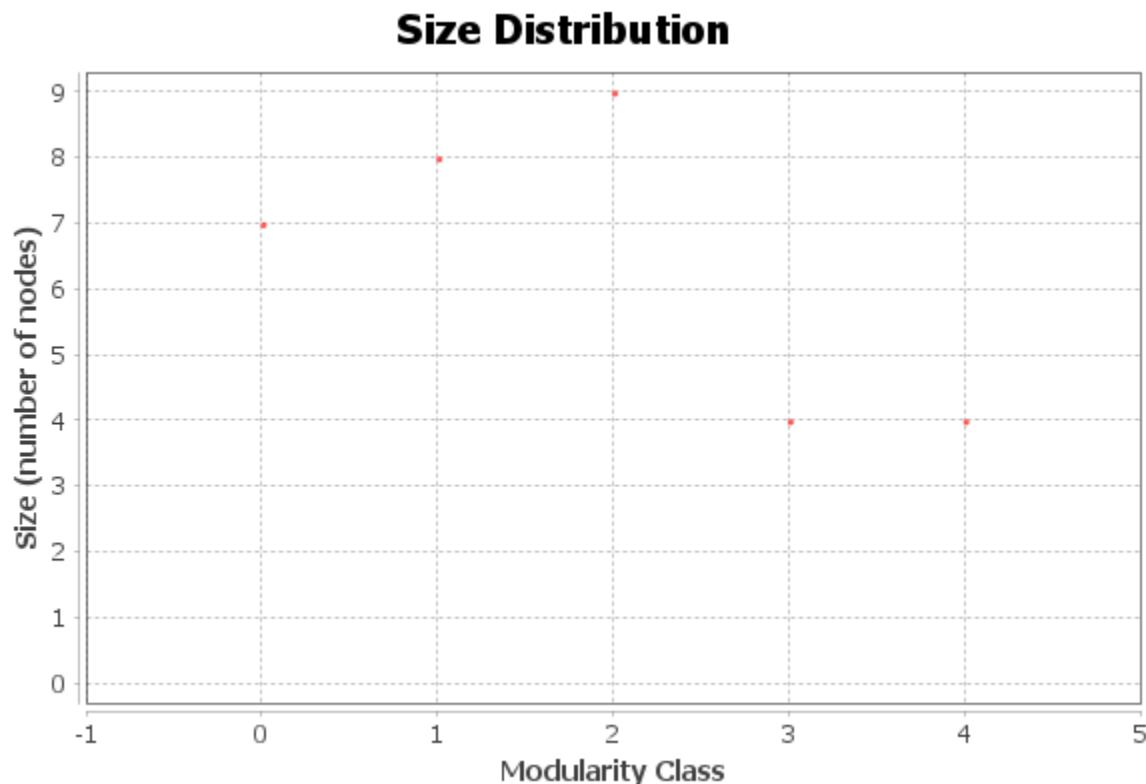
Resolution: 1.0

Results:

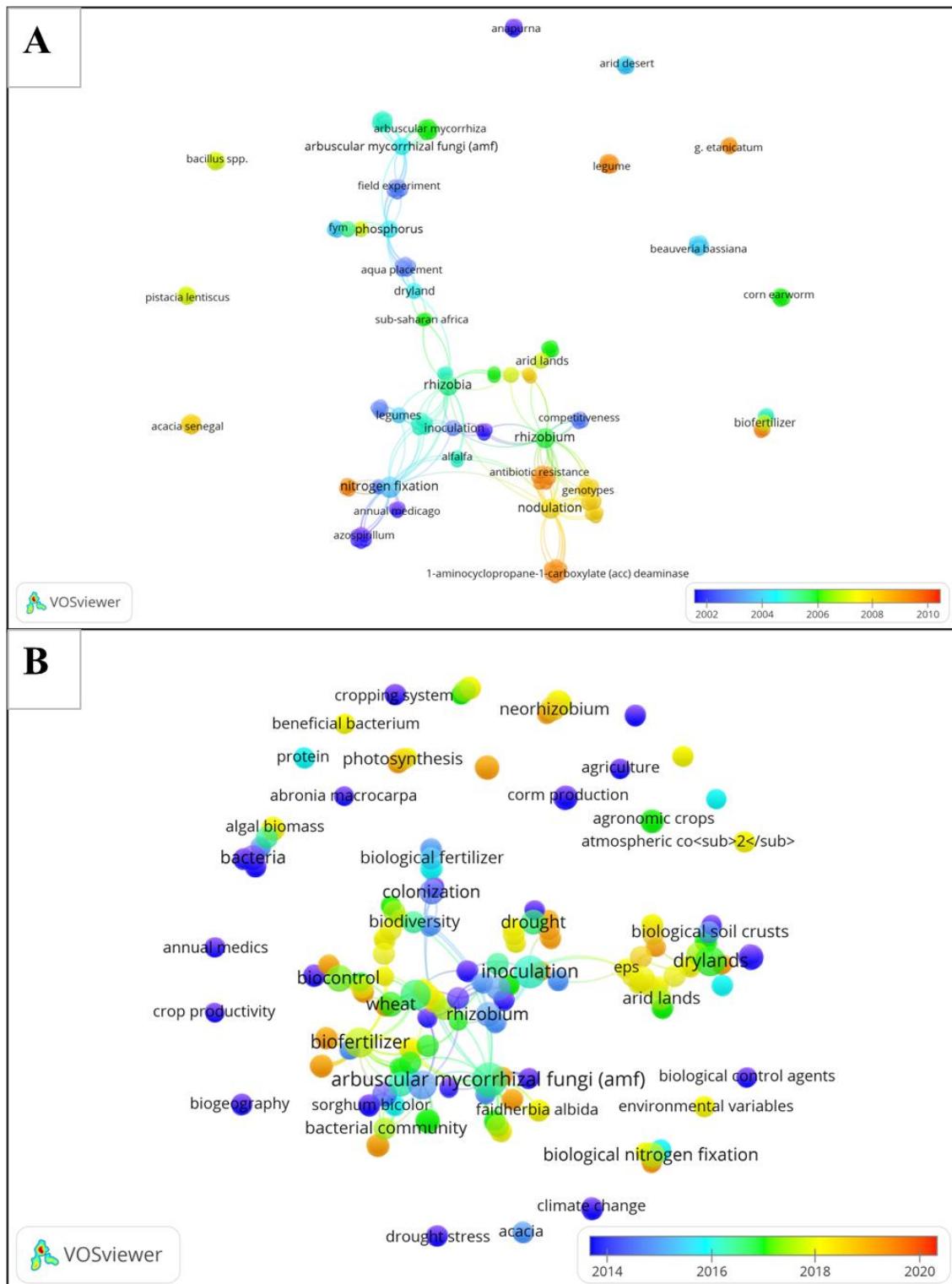
Modularity: 0.742

Modularity with resolution: 0.742

Number of Communities: 5



Supplementary Figure S1D: Modularity report for 1990-1999 Scopus Temporal keywords co-occurrence networks



Supplementary Figure S2: A: 2000-2009 Scopus temporal author keywords co-occurrence network (n ≥ 1 | Items: 162 | Links: 466 | Total link strength: 471| Clusters: 22. The digital

version is accessible here <https://tinyurl.com/237jhgkt>. **B:** 2010-2019 Scopus temporal author keywords co-occurrence network ($n \geq 1$ | Items: 407 | Links: 1146 | Total link strength: 1157 |Clusters: 43. All keywords were shown regardless of whether they are connected to each other or not. The digital version is accessible here <https://tinyurl.com/2b92vx15>

Modularity report for 2000-2009 Scopus Temporal keywords co-occurrence networks

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

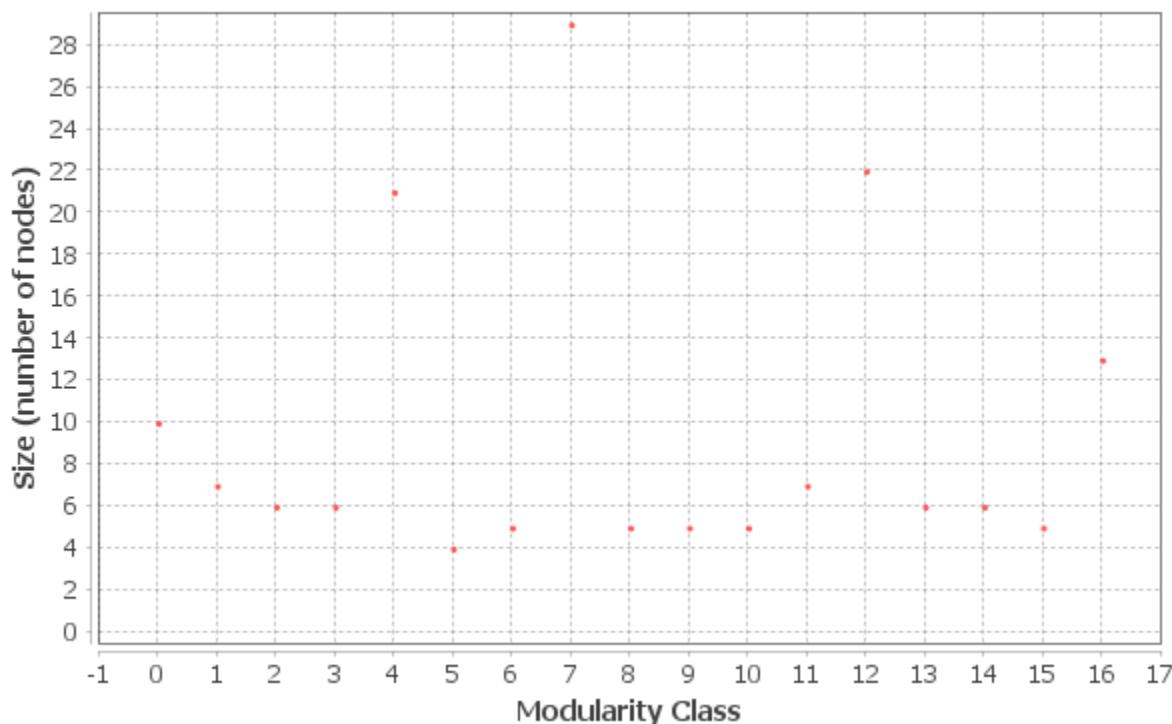
Results:

Modularity: 0.804

Modularity with resolution: 0.804

Number of Communities: 17

Size Distribution



Supplementary Figure S2C: Modularity report for 2000-2009 Scopus Temporal keywords co-occurrence networks

Modularity report for 2010-2019 Scopus Temporal keywords co-occurrence networks

Parameters:

Randomize: On

Use edge weights: On

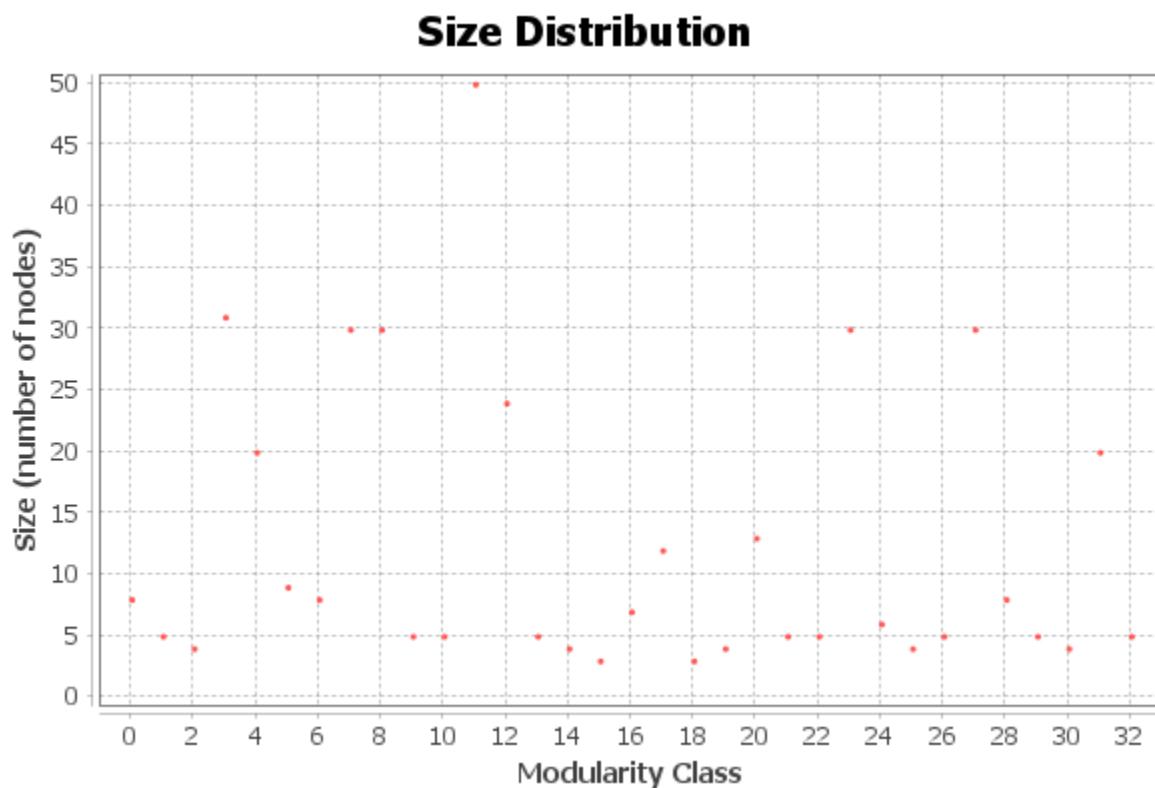
Resolution: 1.0

Results:

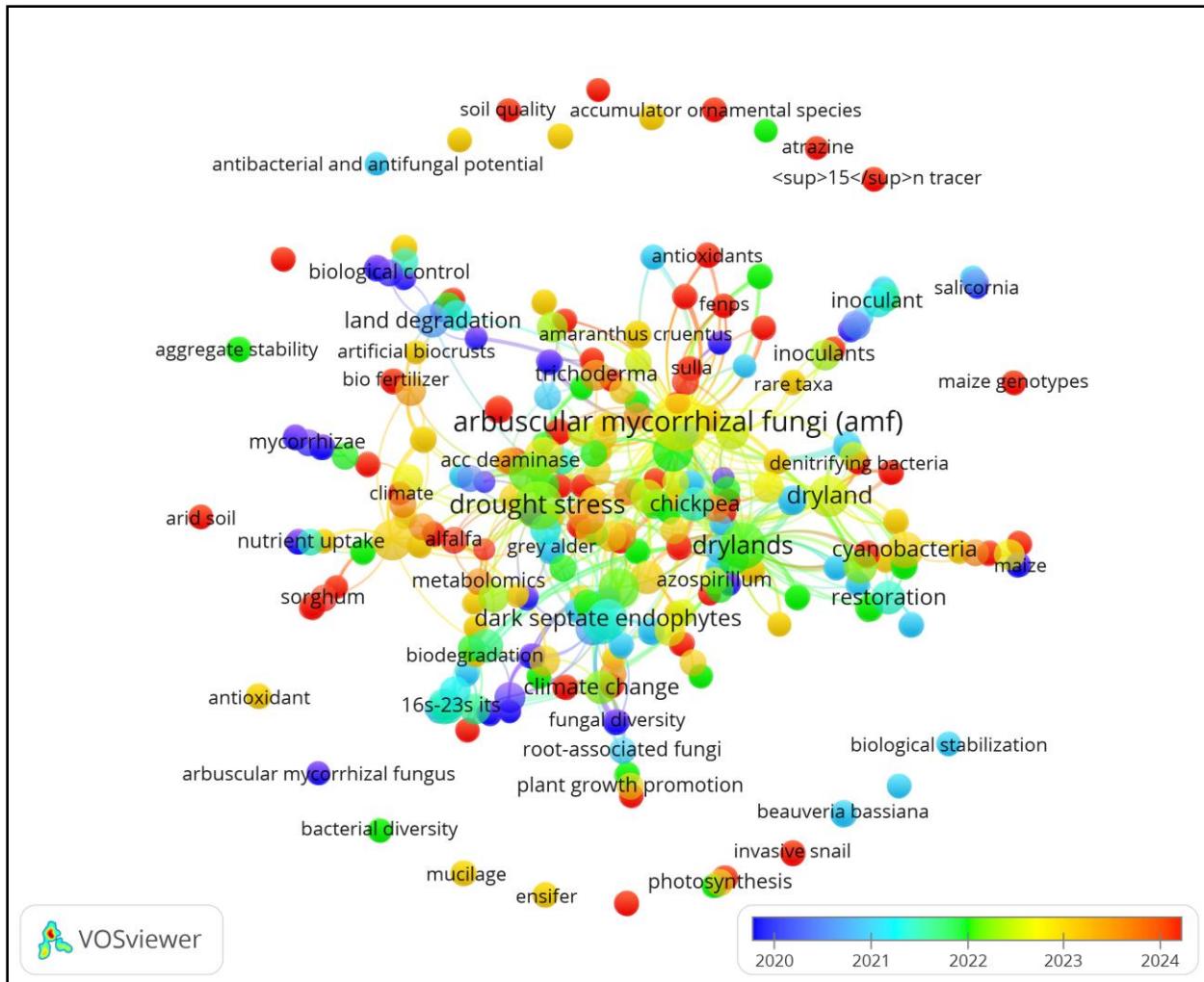
Modularity: 0.876

Modularity with resolution: 0.876

Number of Communities: 33



Supplementary Figure S2D: Modularity report for 2010-2019 Scopus Temporal keywords co-occurrence networks



Supplementary Figure S3: 2020-2024 Scopus temporal author keywords co-occurrence network ($n \geq 1$) | Items: 694 | Links: 2224 | Total link strength: 2295 | Clusters: 61. All keywords were shown regardless of whether they are connected to each other or not. The digital version is accessible here <https://tinyurl.com/28a9nklk>

Modularity report for 2020-2024 Scopus Temporal keywords co-occurrence networks

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

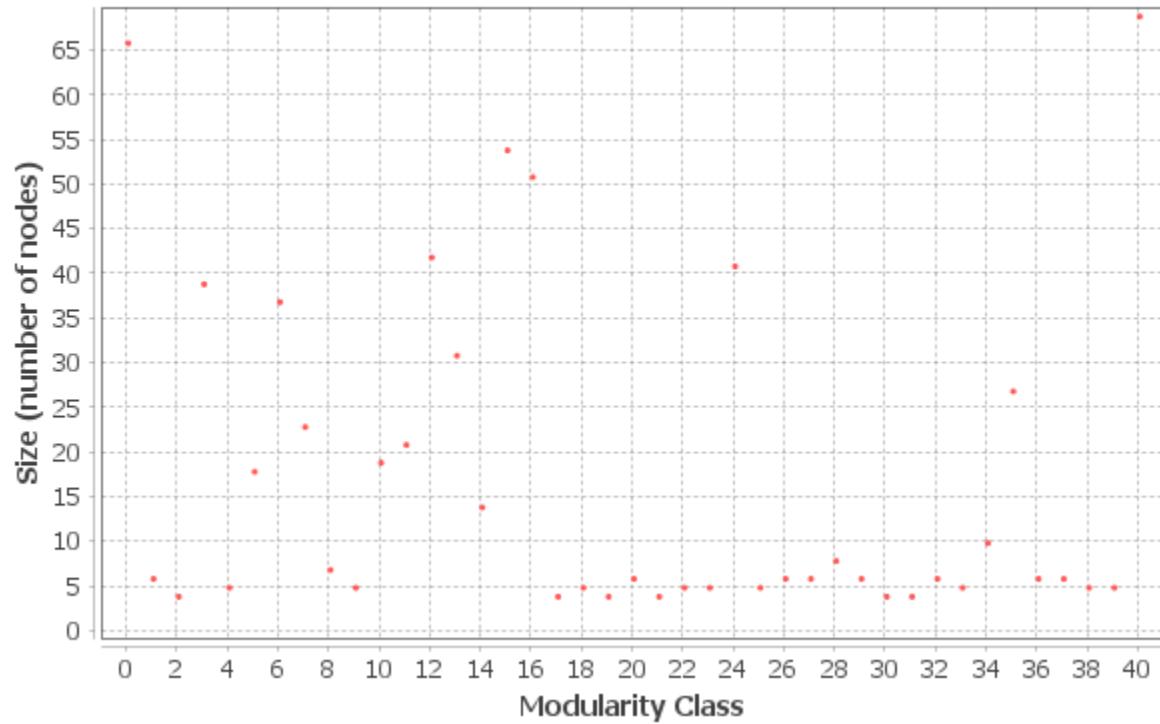
Results:

Modularity: 0.809

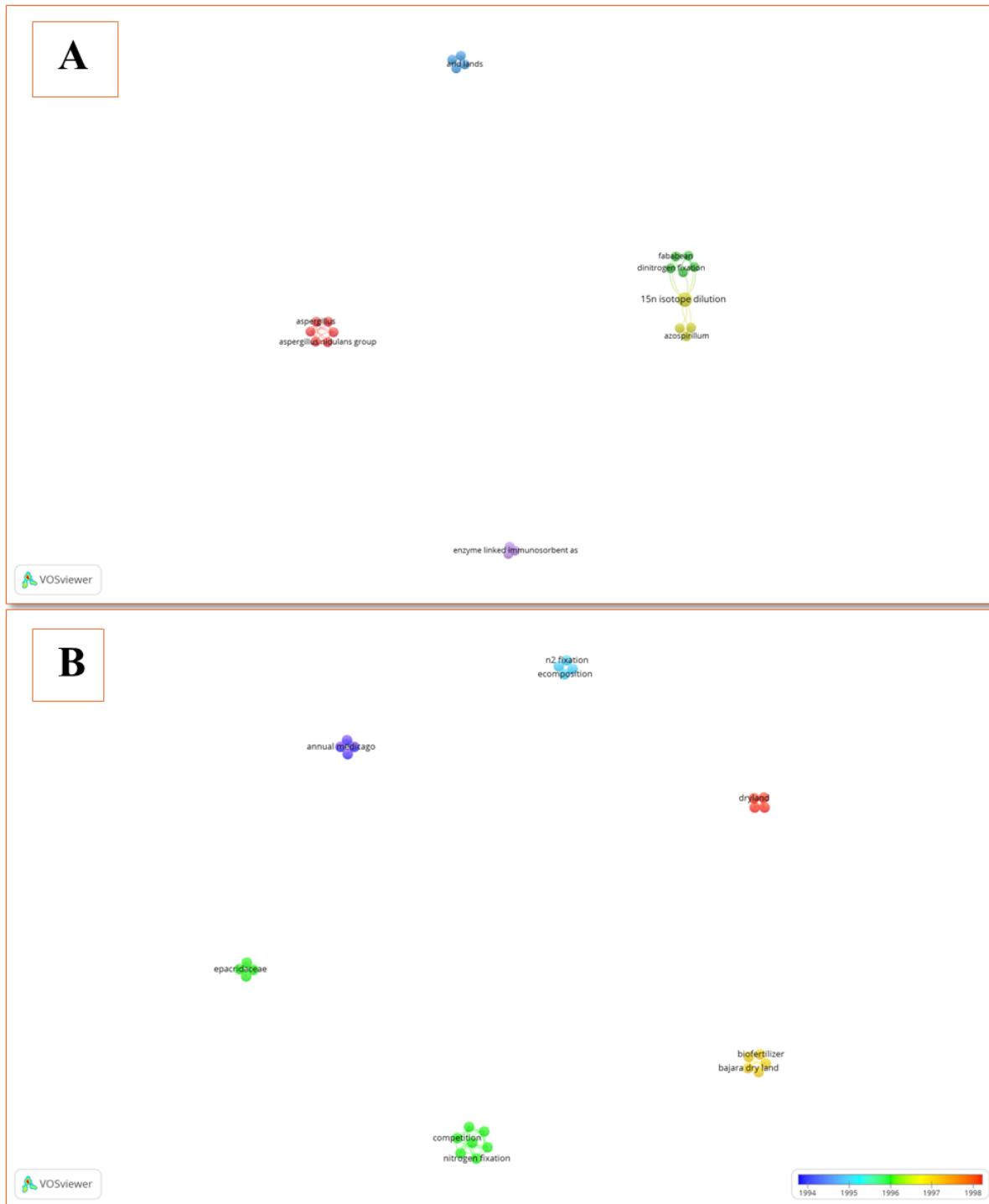
Modularity with resolution: 0.809

Number of Communities: 41

Size Distribution



Supplementary Figure S3A: Modularity report for 2020-2024 Scopus Temporal keywords co-occurrence networks



Supplementary Figure S4: **A:** Dimensions validation dataset: 1880-1889 keywords co-occurrence networks ($n \geq 1$). Items: 22 | Links: 45 | Total link strength: 45 | Clusters: 5. The digital version is accessible here <https://tinyurl.com/2y72es7c> **B:** Dimensions validation dataset: 1990-1999 keywords co-occurrence networks ($n \geq 1$). Items: 28 | Links: 55 | Total link strength: 55 | Clusters: 6. The digital version is accessible here <https://tinyurl.com/2yadhhol>

Modularity report for Dimensions validation dataset: 1880-1889 keywords co-occurrence networks

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

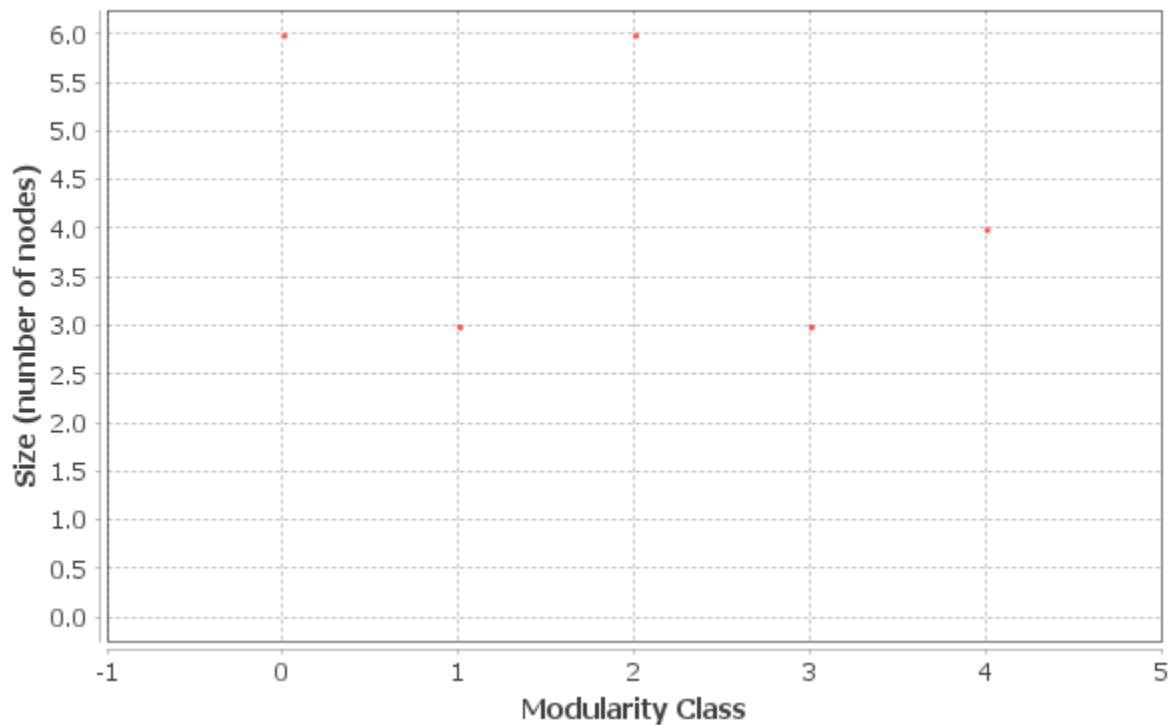
Results:

Modularity: 0.656

Modularity with resolution: 0.656

Number of Communities: 5

Size Distribution



Supplementary Figure S4C: Modularity report for Dimensions 1880-1889 keywords co-occurrence networks

Modularity report for Dimensions validation dataset: 1990-1999 keywords co-occurrence networks

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

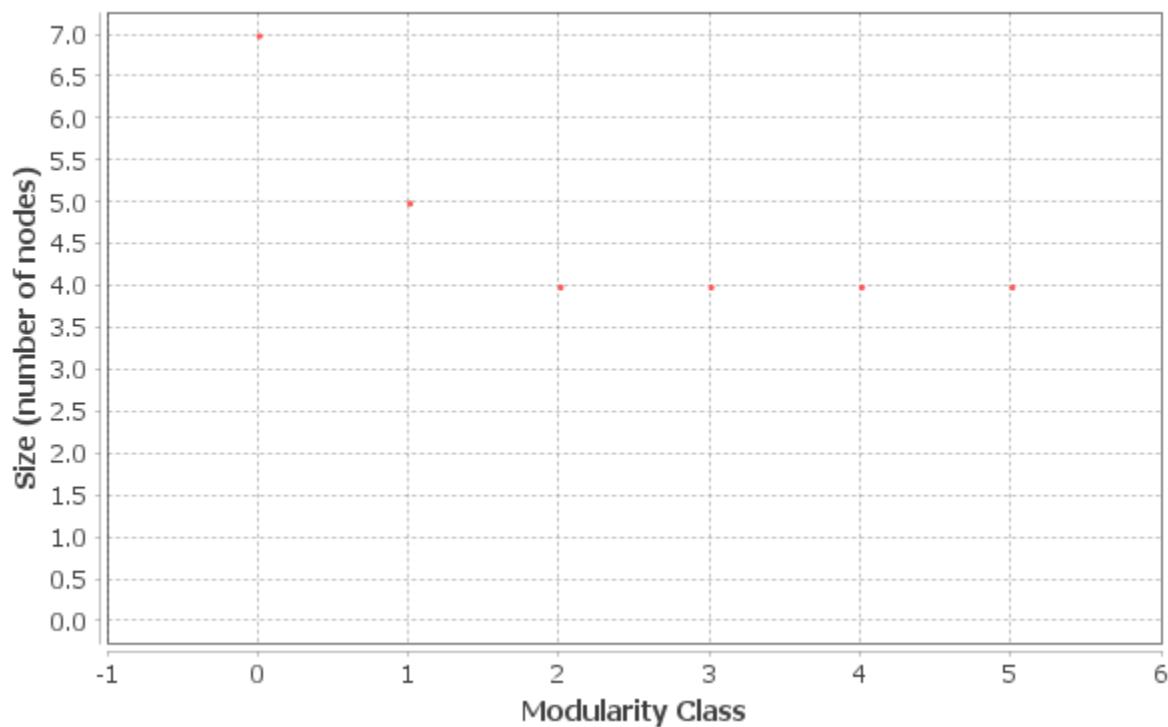
Results:

Modularity: 0.774

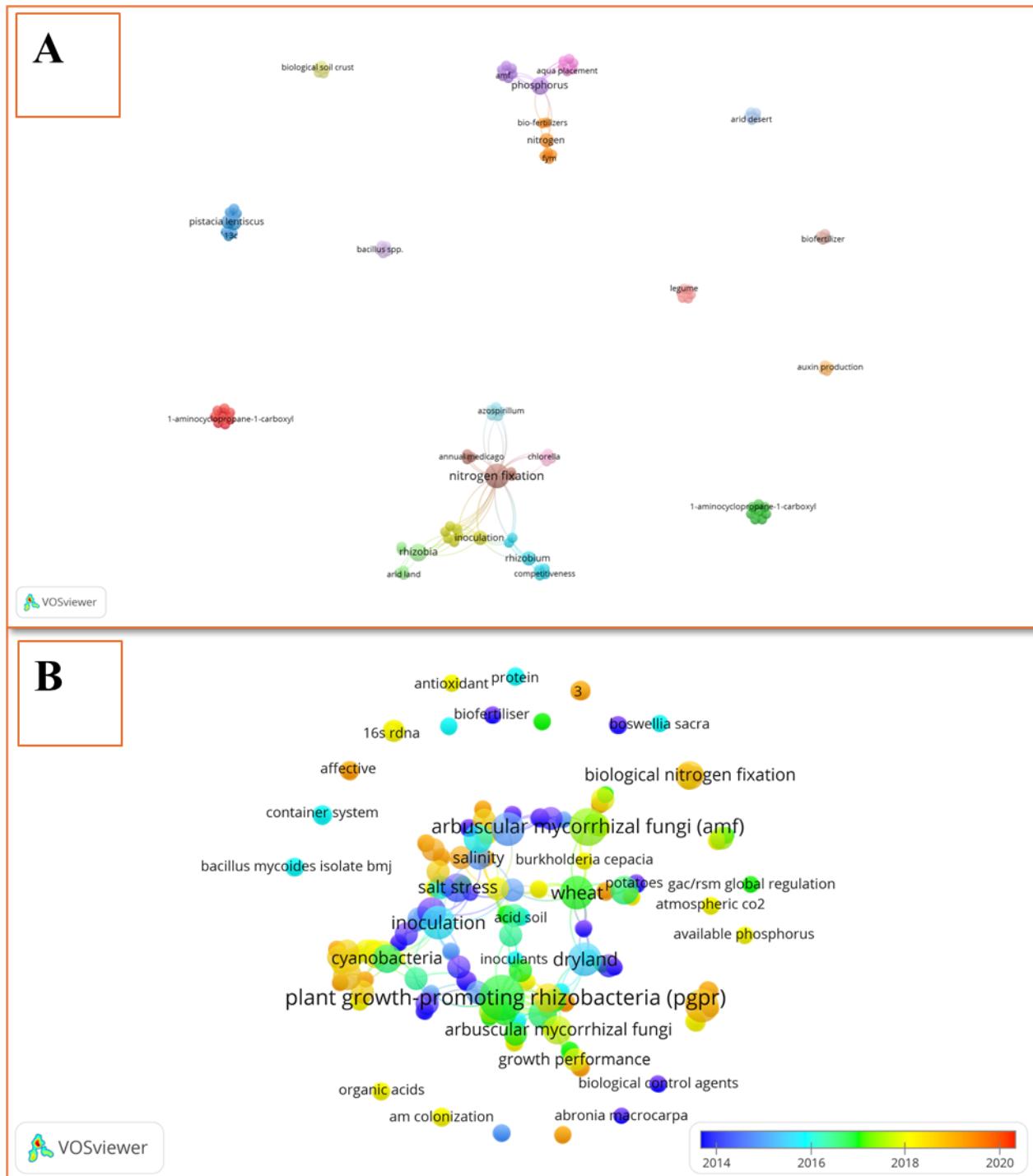
Modularity with resolution: 0.774

Number of Communities: 6

Size Distribution



Supplementary Figure S4D: Modularity report for Dimensions 1990-1999 keywords co-occurrence networks



Supplementary Figure S5: **A:** Dimensions validation dataset: 2000-2009 keywords co-occurrence networks ($n \geq 1$). Items: 108 | Links: 290 | Total link strength: 290 | Clusters: 18. The digital version is accessible here <https://tinyurl.com/23973ds8>. **B:** Dimensions validation dataset: 2010-2019 keywords co-occurrence networks ($n \geq 1$). Items: 378 | Links: 1058 | Total link strength: 1065 | Clusters: 41. The digital version is accessible here <https://tinyurl.com/29ay7ynk>

Modularity report Dimensions validation dataset: 2000-2009 keywords co-occurrence networks.

Parameters:

Randomize: On

Use edge weights: On

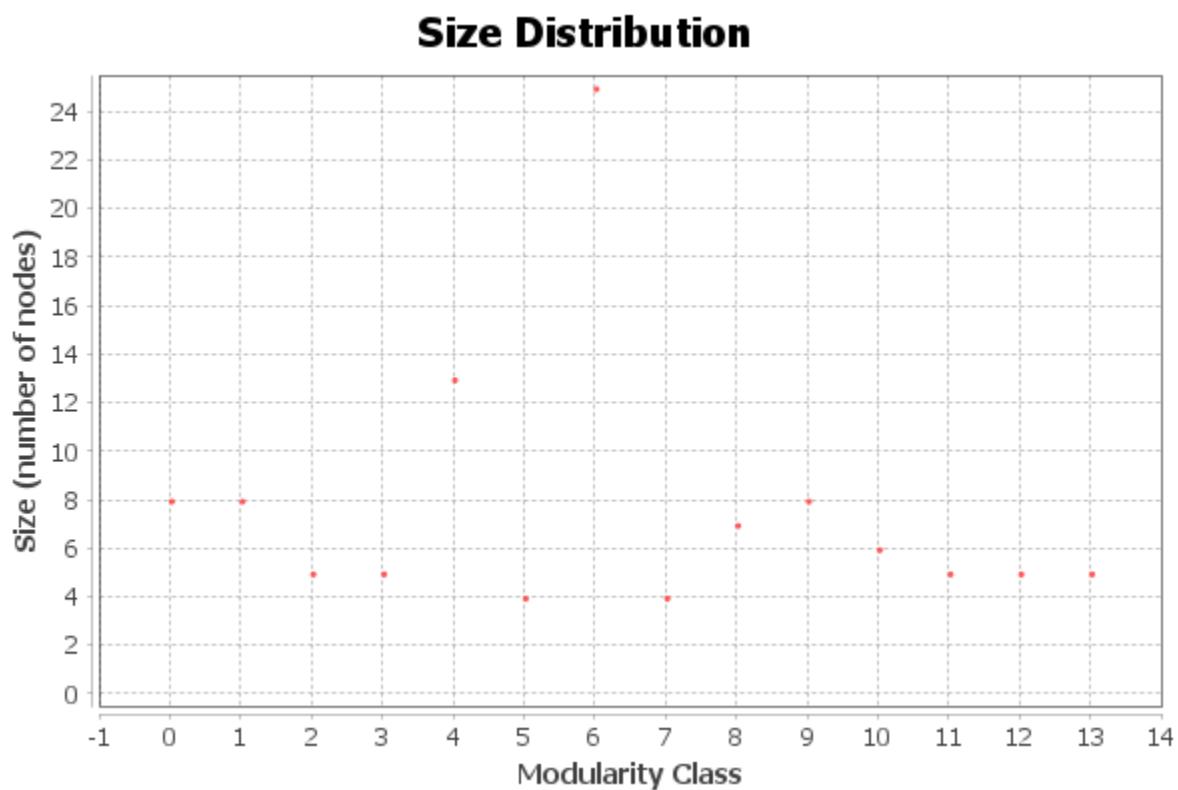
Resolution: 1.0

Results:

Modularity: 0.834

Modularity with resolution: 0.834

Number of Communities: 14



Supplementary Figure S5C: Modularity report Dimensions 2000-2009 keywords co-occurrence networks

Modularity report for 2010-2019 Dimensions keywords co-occurrence networks

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

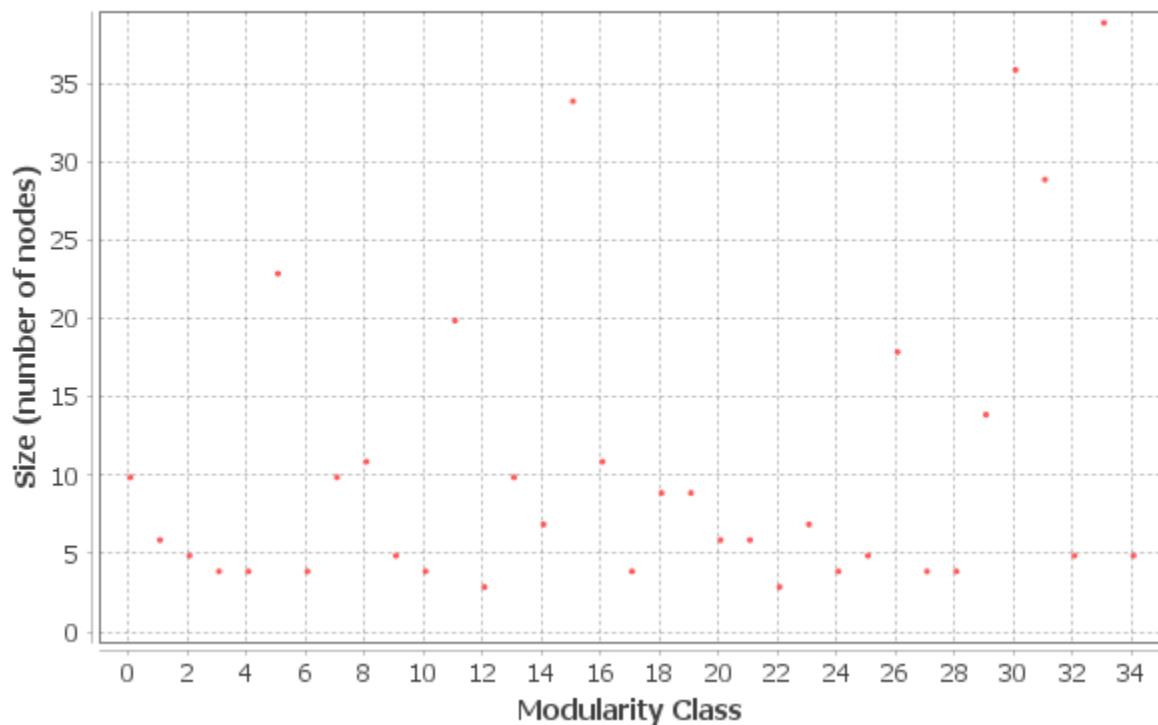
Results:

Modularity: 0.867

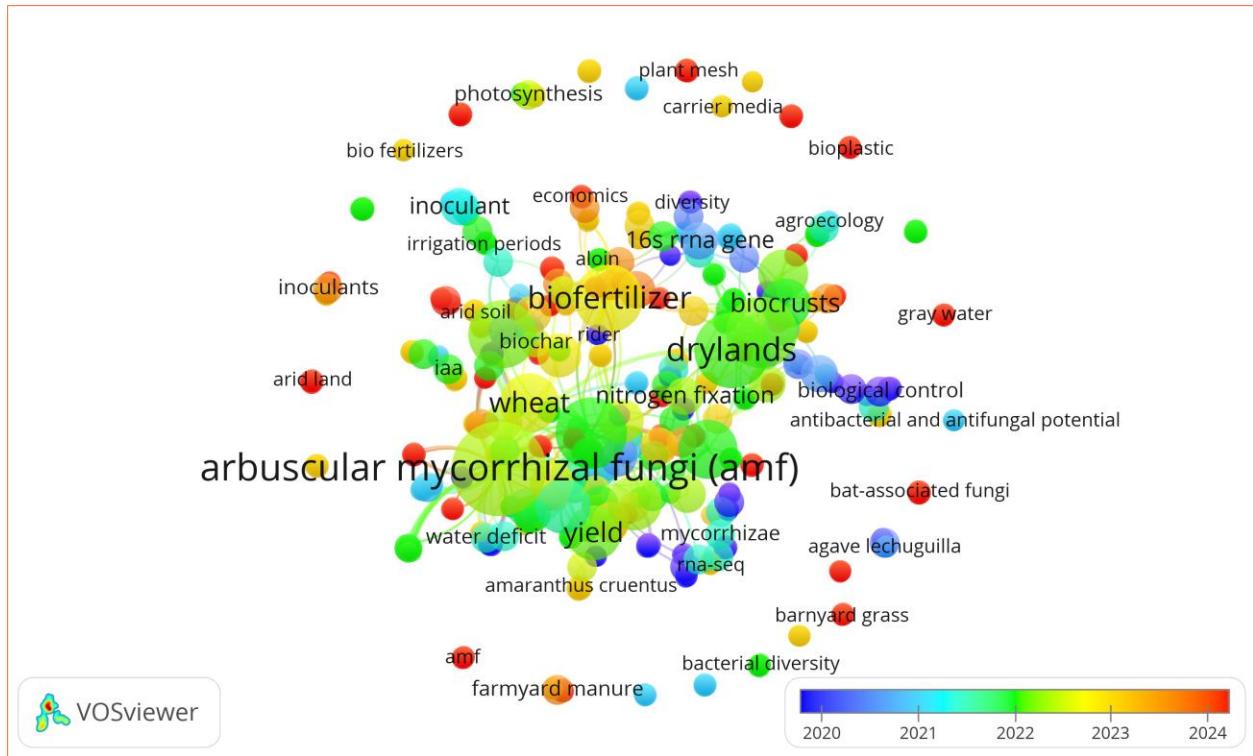
Modularity with resolution: 0.867

Number of Communities: 35

Size Distribution



Supplementary Figure S5D: Modularity report for 2010-2019 Dimensions keywords co-occurrence networks



Supplementary Figure S6: Dimensions validation dataset: 2020-2024 keywords co-occurrence networks ($n \geq 1$). Items: 635 | Links: 1953 | Total link strength: 2003 | Clusters: 57. The digital version is accessible here <https://tinyurl.com/248szq6t>

Modularity report for 2020-2024 keywords co-occurrence networks

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

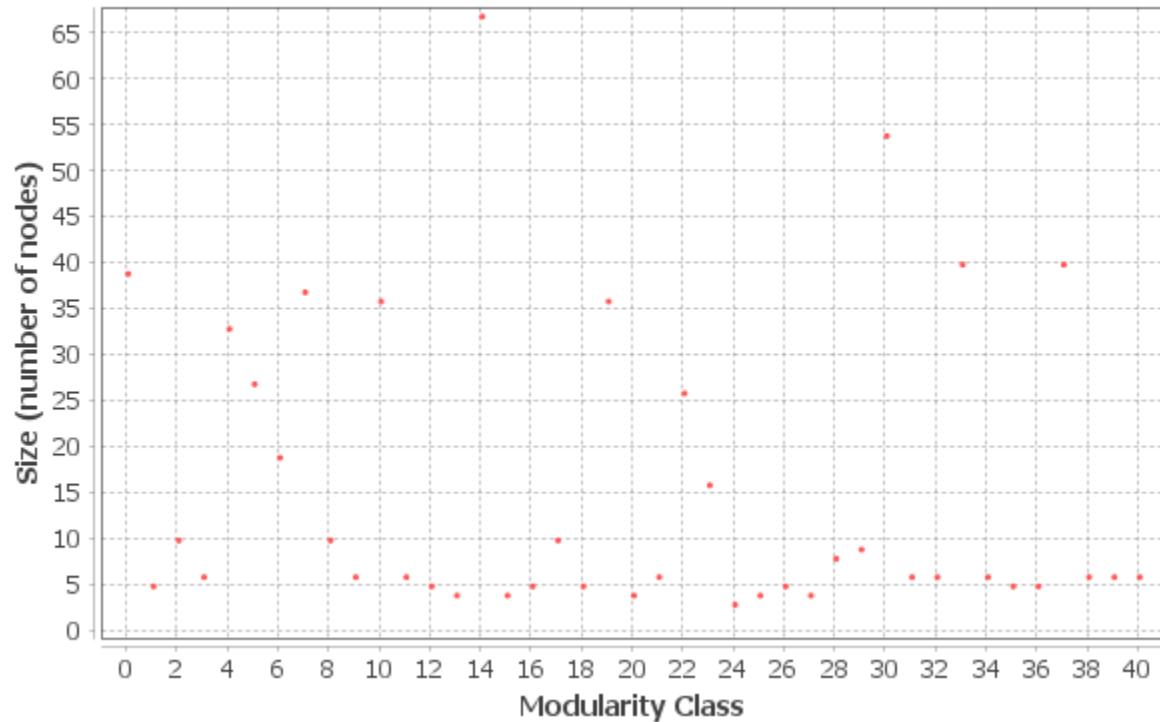
Results:

Modularity: 0.820

Modularity with resolution: 0.820

Number of Communities: 41

Size Distribution



Supplementary Figure S6A: Modularity report for 2020-2024 keywords co-occurrence networks

All author keywords co-occurrence network and Modularity reports

Modularity report for Scopus author keywords co-occurrence network ($n \geq 1$)

The Scopus author keywords co-occurrence network ($n \geq 1$) is presented in the main text as **Figure 4**.

Parameters:

Randomize: On

Use edge weights: On

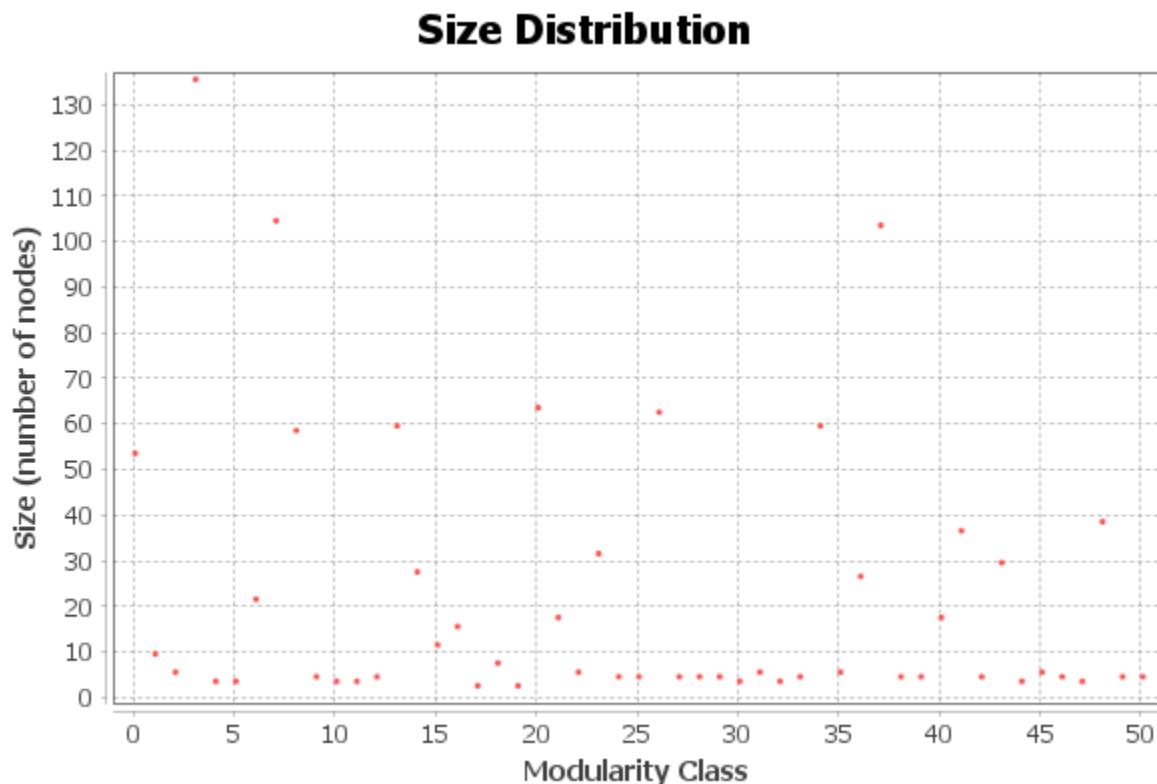
Resolution: 1.0

Results:

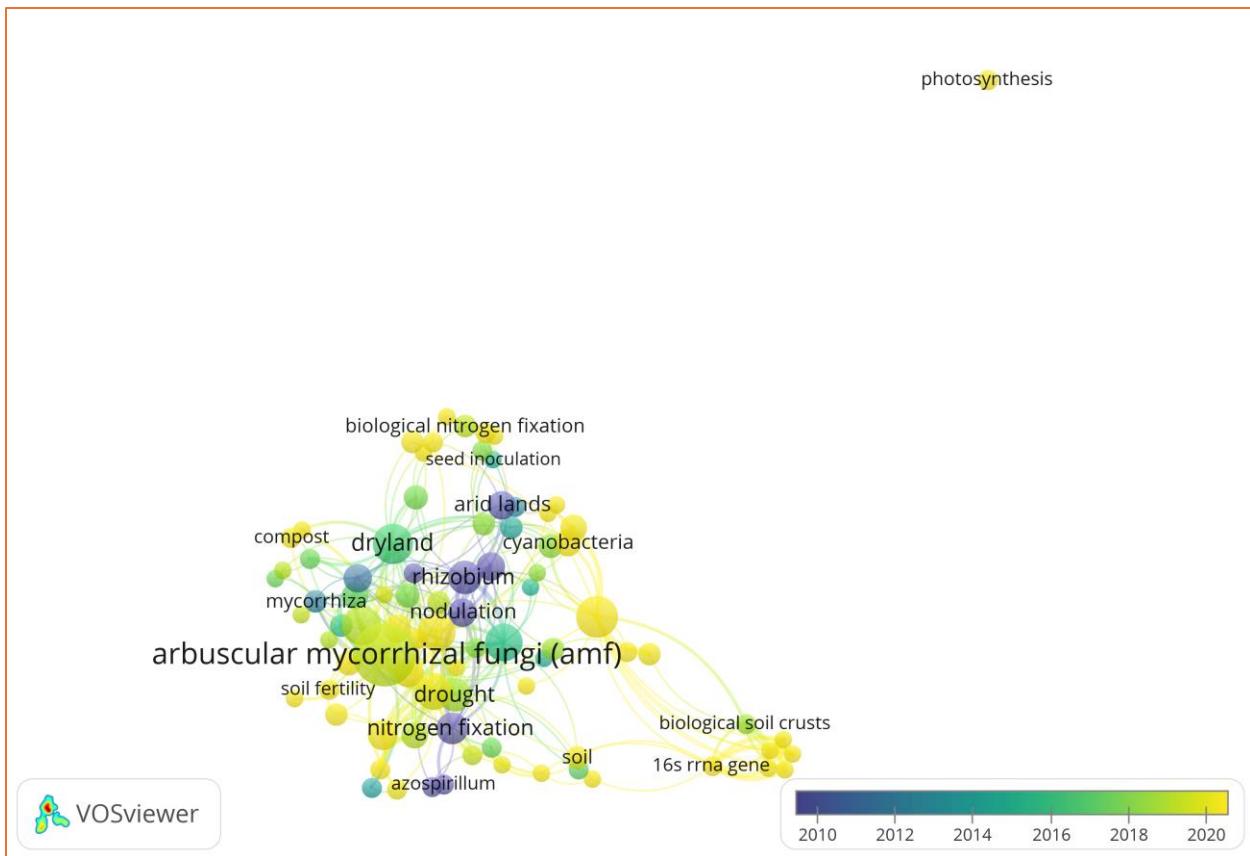
Modularity: 0.756

Modularity with resolution: 0.756

Number of Communities: 51



Supplementary Figure S6B: Modularity report for Scopus author keywords co-occurrence network of 329 selected articles ($n \geq 1$).



Supplementary Figure S7: Scopus Author Keywords co-occurrence network ($n \geq 3$). Items: 84 | Links: 304 | Total link strength: 430 | Clusters: 11 <https://tinyurl.com/28twe38p>

Modularity report Scopus Author Keywords co-occurrence network ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

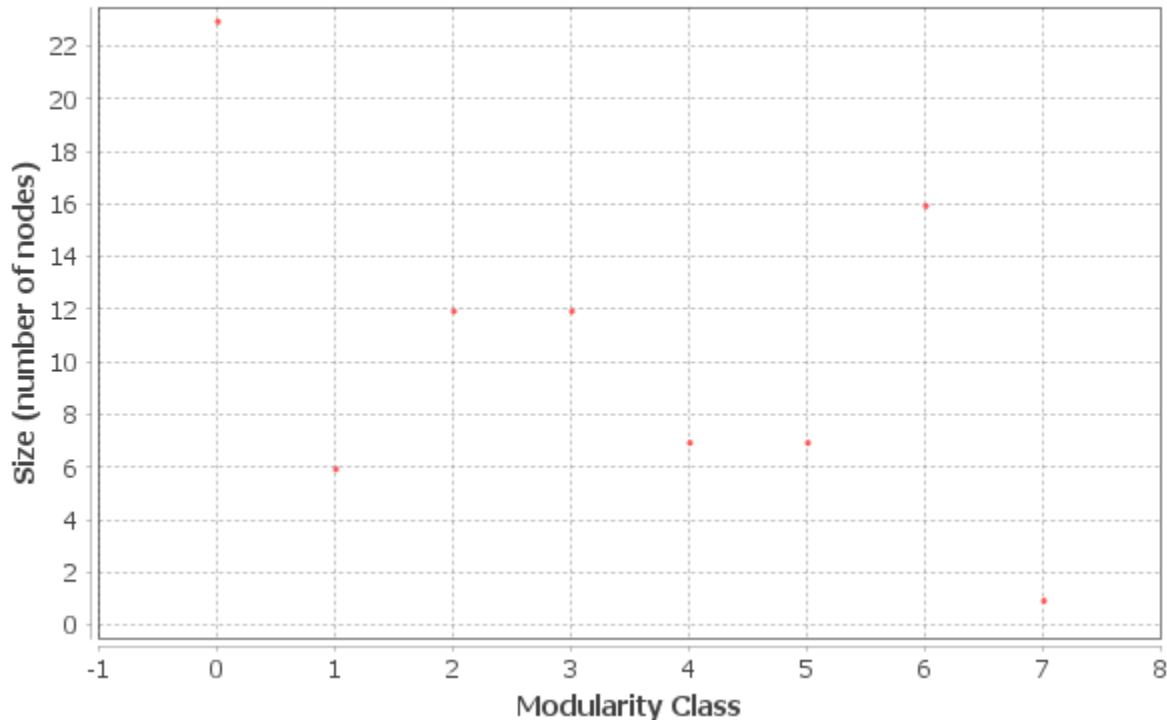
Results:

Modularity: 0.484

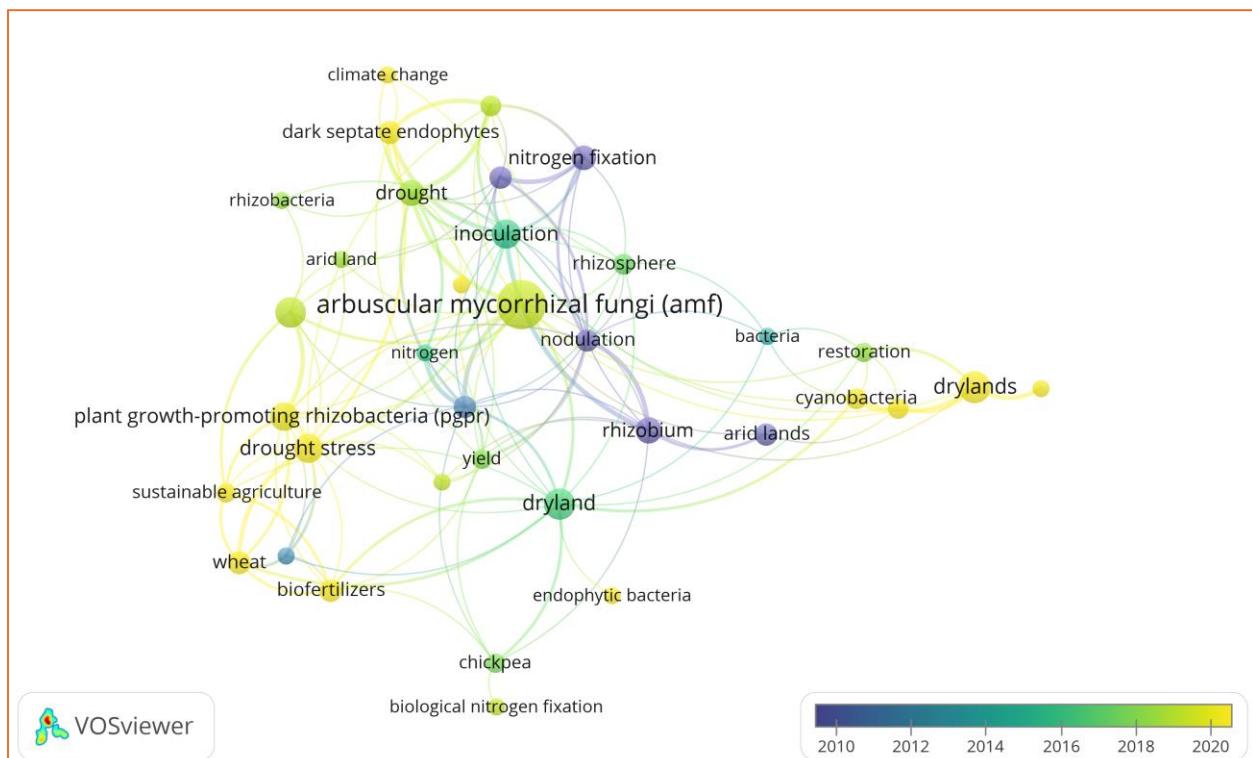
Modularity with resolution: 0.484

Number of Communities: 8

Size Distribution



Supplementary Figure S7A: Modularity report Scopus Author Keywords co-occurrence network ($n \geq 3$)



Supplementary Figure S8: Scopus Author Keywords co-occurrence network ($n \geq 5$). Items: 36 | Links: 129 | Total link strength: 191 | Clusters: 5. <https://tinyurl.com/26uyb4jg>

Modularity report Scopus Author Keywords co-occurrence network ($n \geq 5$)

Parameters:

Randomize: On

Use edge weights: On

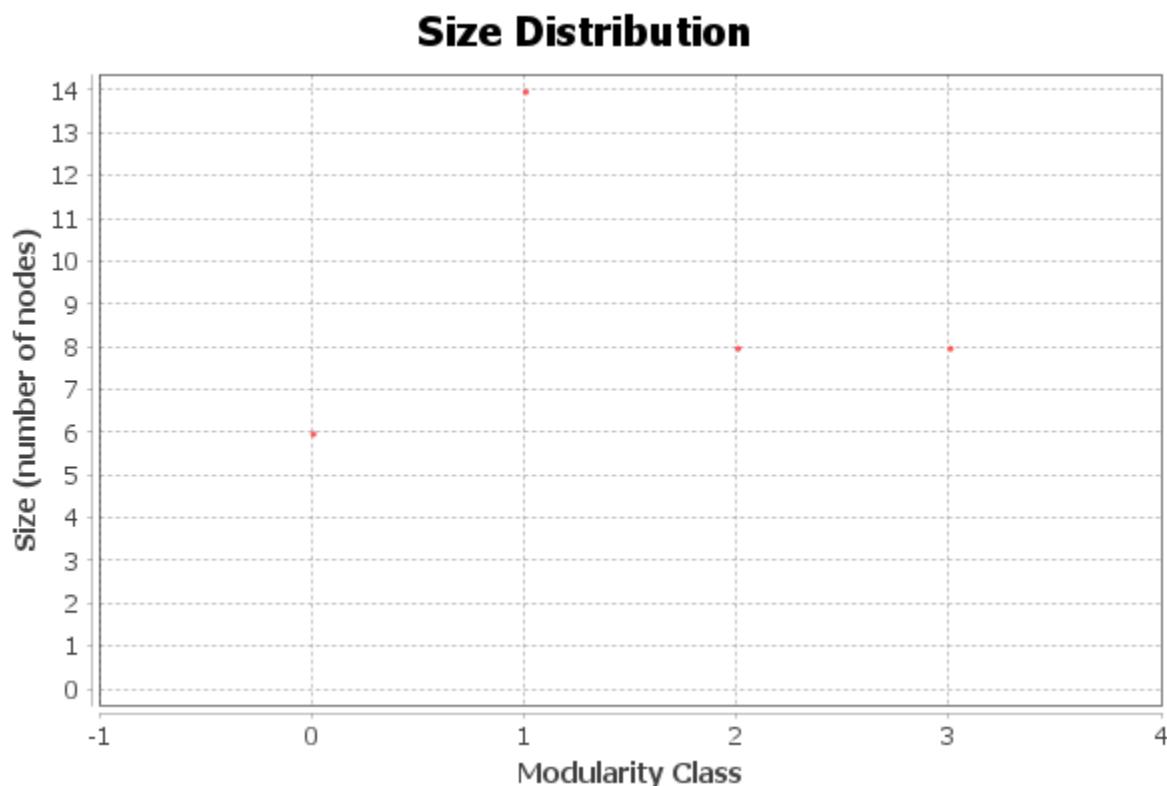
Resolution: 1.0

Results:

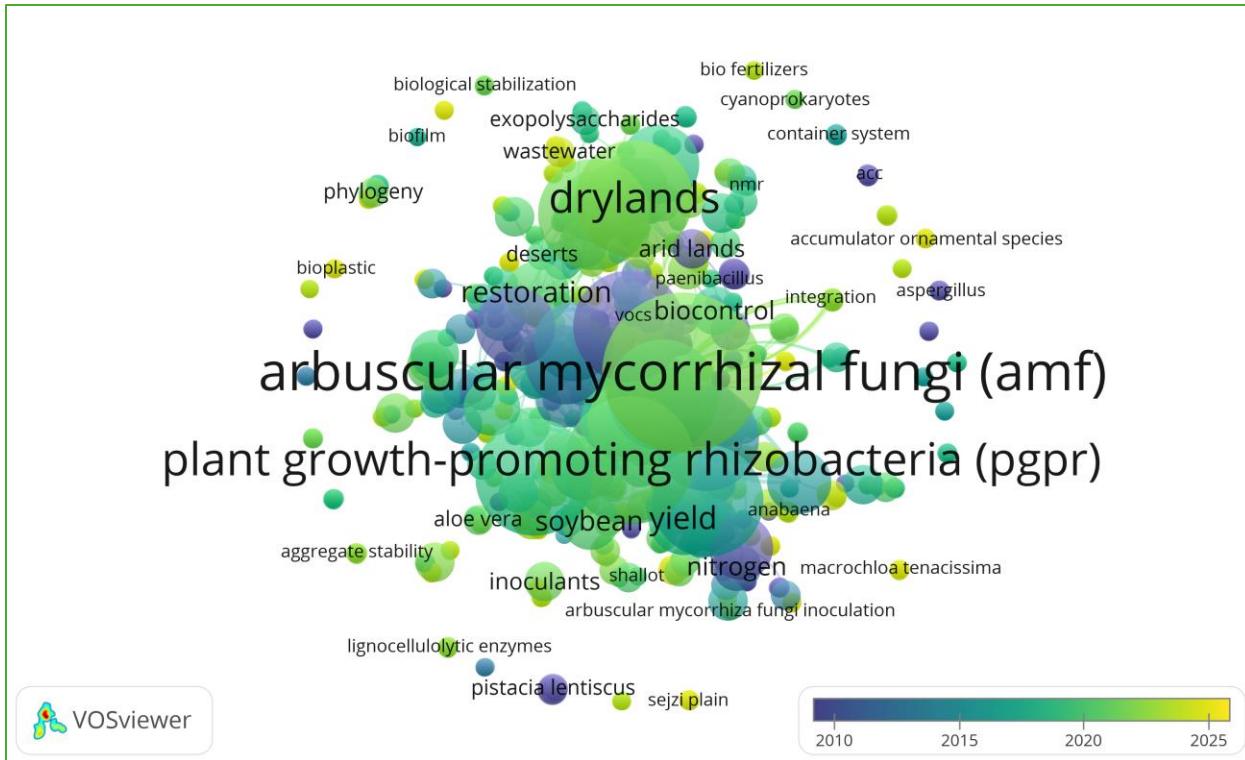
Modularity: 0.367

Modularity with resolution: 0.367

Number of Communities: 4



Supplementary Figure S8A: Modularity report for Scopus Author Keywords co-occurrence network ($n \geq 5$).



Supplementary Figure S9: Dimensions validation author keywords cooccurrence network (n≥1). Items: 1018 | Links: 3345 | Total link strength: 3458 | Clusters: 78. All keywords were shown regardless of whether they are connected or not. The digital version is accessible here <https://tinyurl.com/27gr8w2r>

**Modularity report for Dimensions validation author keywords co-occurrence network
(n≥1)**

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

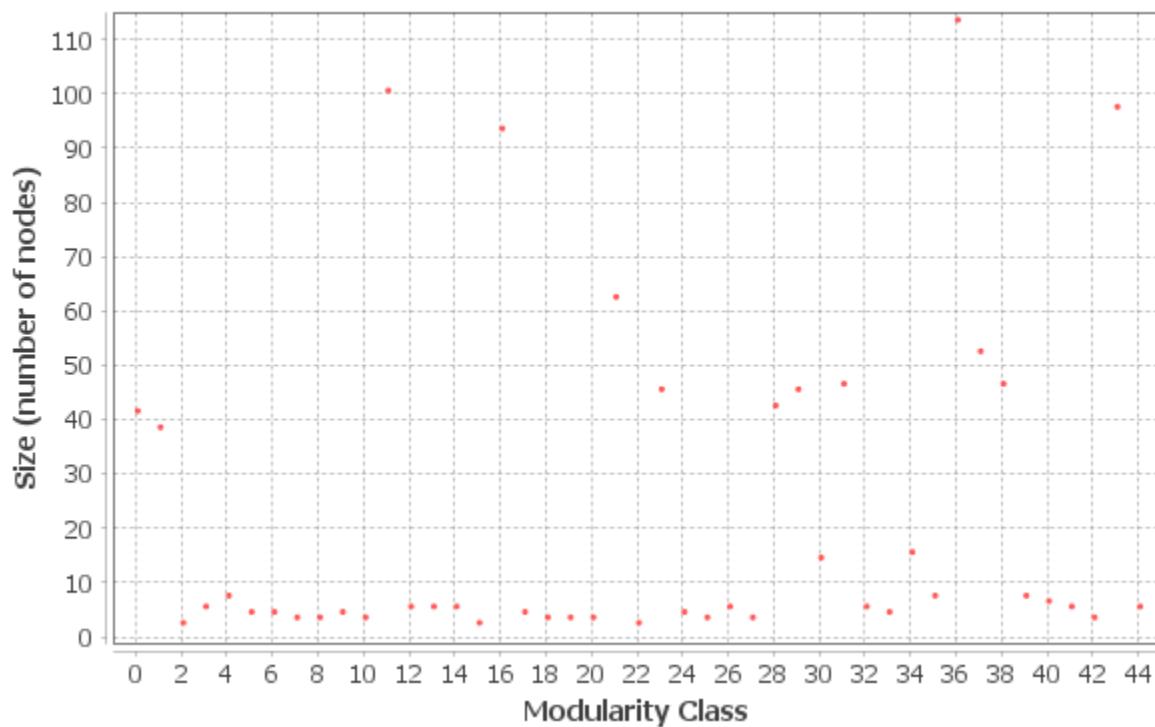
Results:

Modularity: 0.780

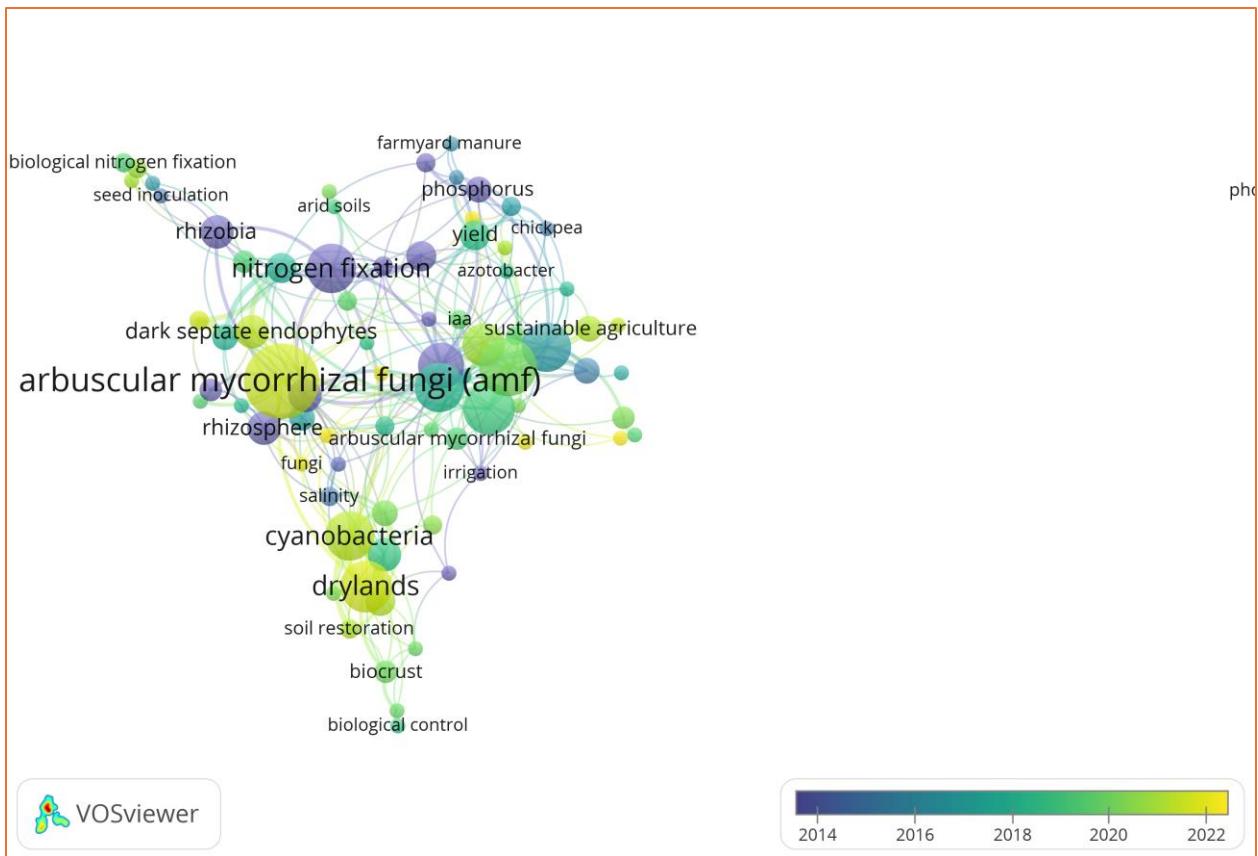
Modularity with resolution: 0.780

Number of Communities: 45

Size Distribution



Supplementary Figure S9A: Modularity report for Dimensions validation author keywords co-occurrence network (n≥1)



Supplementary Figure S10: Dimensions author keywords co-occurrence network ($n \geq 3$) |
 Items: 78 | Links: 277 | Total link strength: 357 | Clusters: 10. All keywords were shown
 regardless of whether they are connected to each other or not. The digital version is accessible
 here <https://tinyurl.com/247ha5jp>

Modularity report for Dimensions author keywords co-occurrence network ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

Results:

Modularity: 0.490

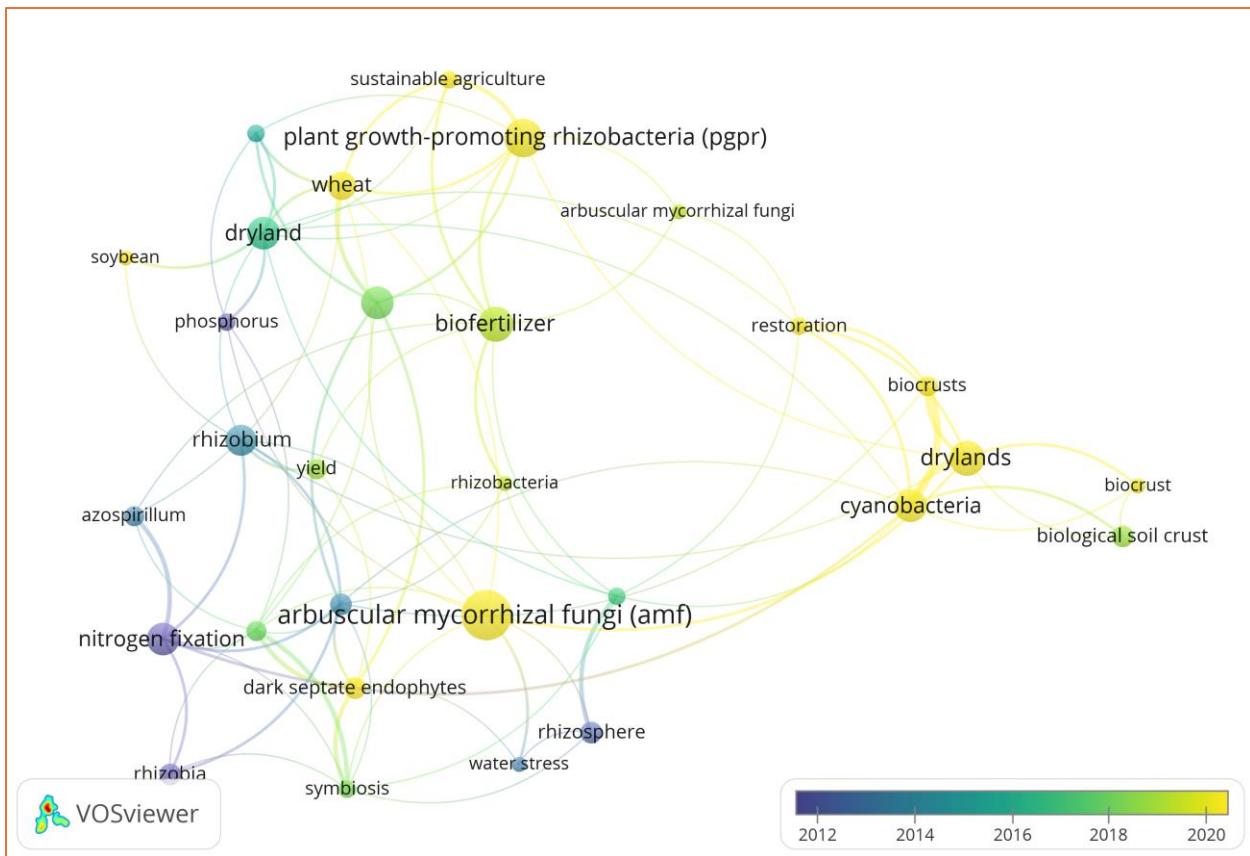
Modularity with resolution: 0.490

Number of Communities: 7

Size Distribution



Supplementary Figure S10A: Modularity report for Dimensions author keywords co-occurrence network ($n \geq 3$)



Supplementary Figure S11: Dimensions author keywords co-occurrence network ($n \geq 5$) |
 Items: 30 | Links: 89 | Total link strength: 141 | Clusters: 5. All keywords were shown regardless
 of whether they are connected or not. The digital version is accessible here
<https://tinyurl.com/2c46evtn>

Modularity report for Dimensions author keywords co-occurrence network ($n \geq 5$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

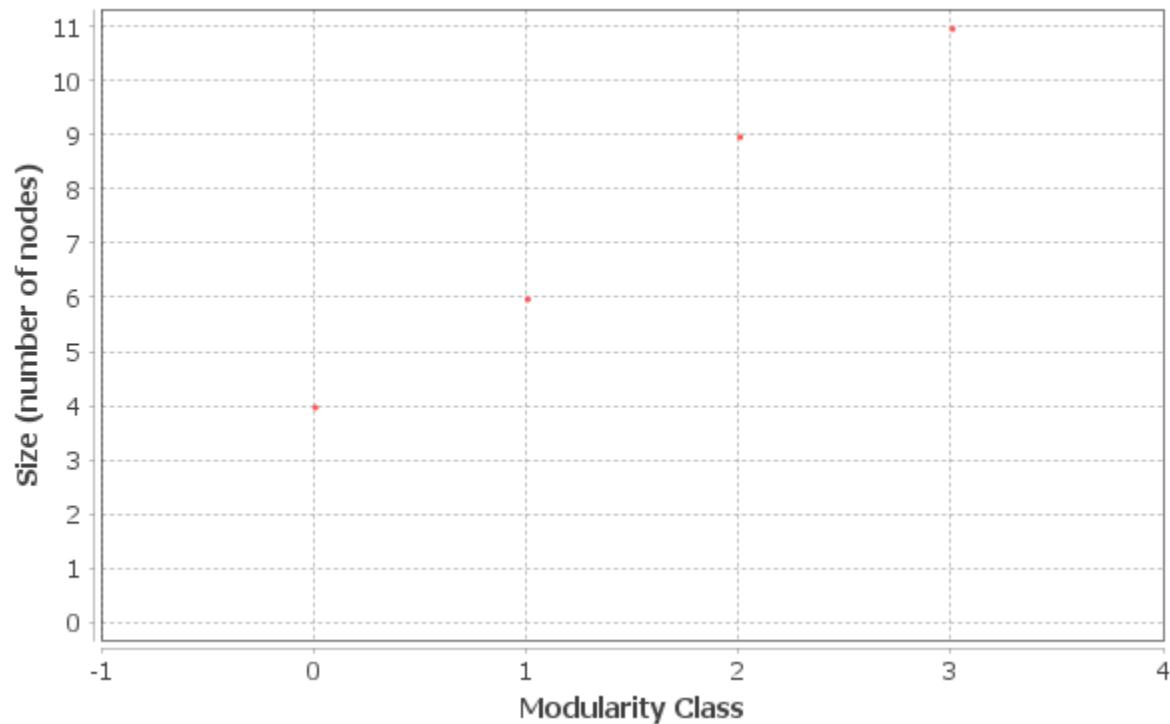
Results:

Modularity: 0.445

Modularity with resolution: 0.445

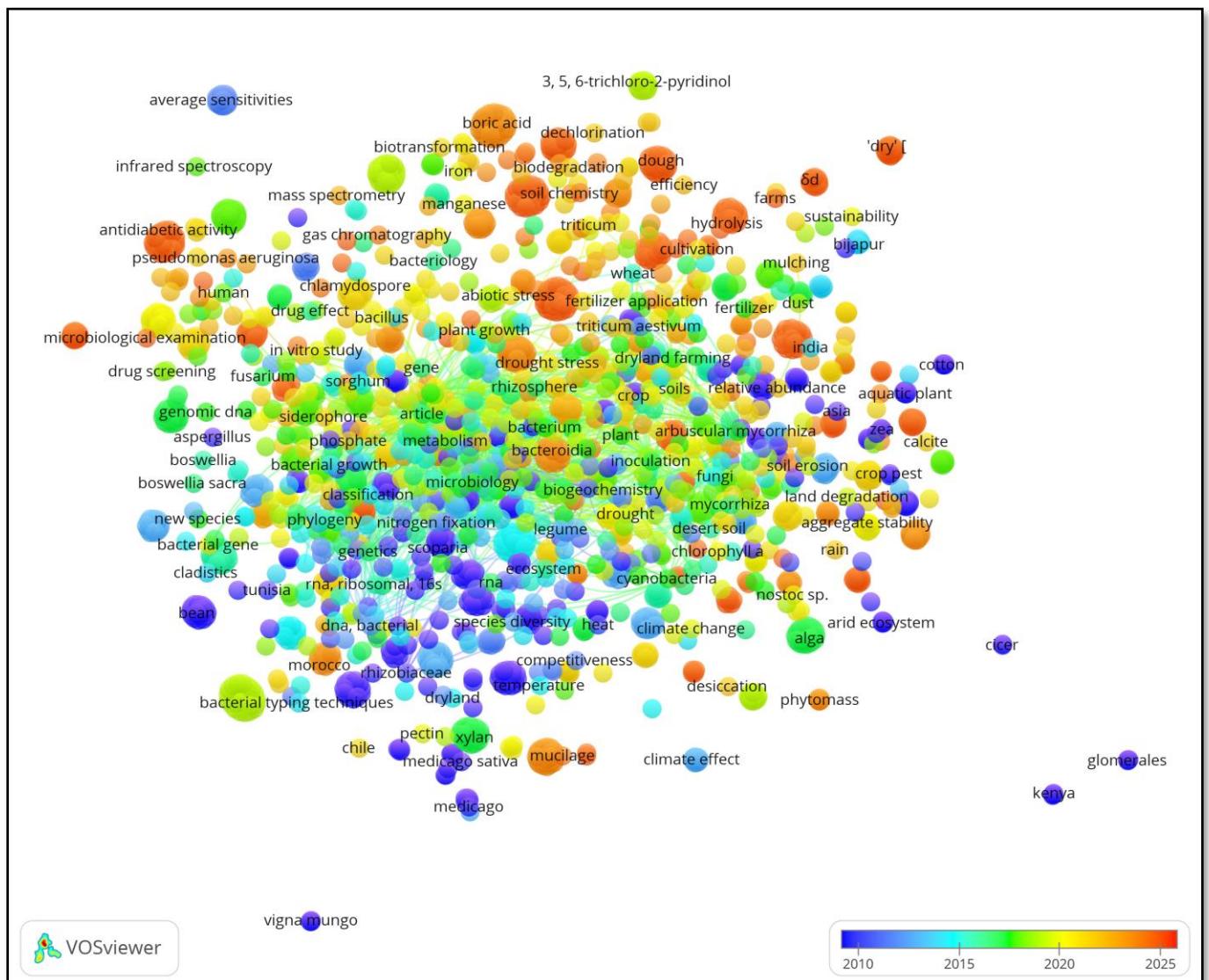
Number of Communities: 4

Size Distribution



Supplementary Figure S11A: Modularity report for Dimensions author keywords co-occurrence network ($n \geq 5$)

Scopus Indexed Keywords network under different thresholds



Supplementary Figure S12: Scopus indexed keywords co-occurrence network ($n \geq 1$). | Items: 2280 | Links: 83481 | Total link strength: 98955 | Clusters: 34. All keywords were shown regardless of whether they are connected to each other or not. The digital version is accessible here <https://tinyurl.com/2bs2yqrg>

Modularity report Scopus indexed keywords co-occurrence network ($n \geq 1$)

Parameters:

Randomize: On

Use edge weights: On

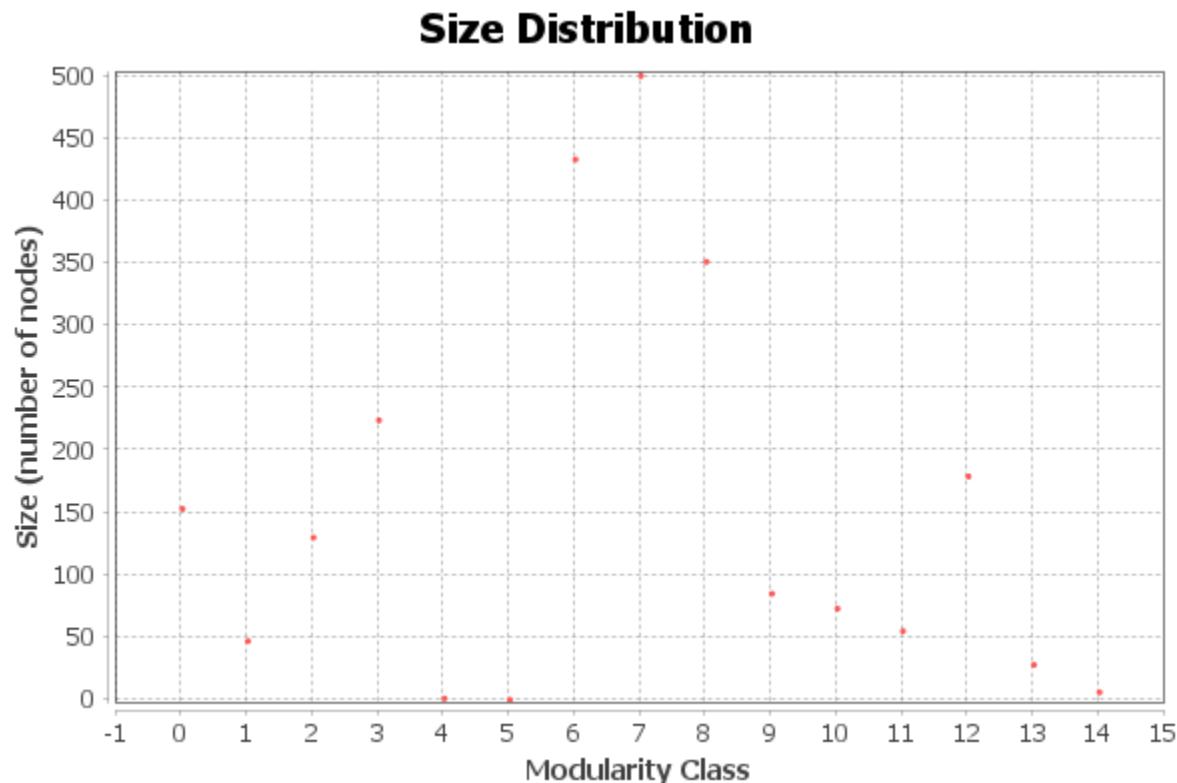
Resolution: 1.0

Results:

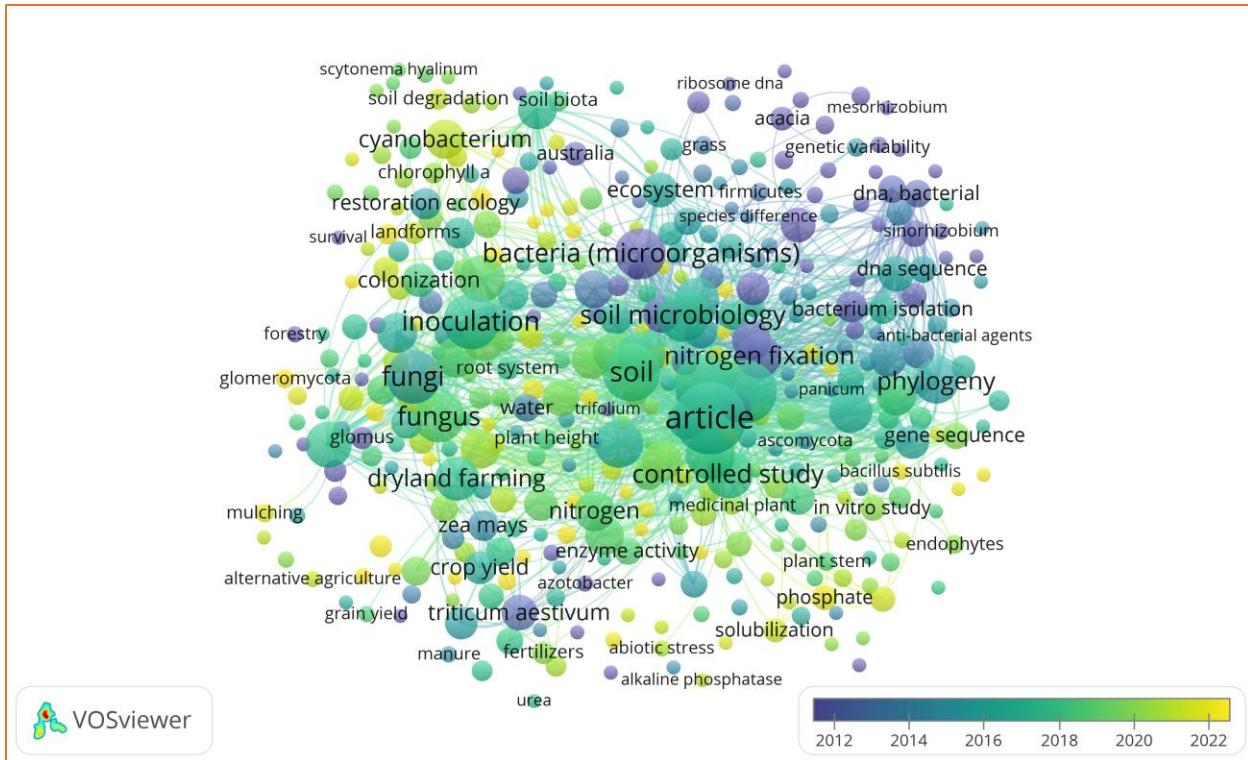
Modularity: 0.357

Modularity with resolution: 0.357

Number of Communities: 15



Supplementary Figure S12A: Modularity report Scopus indexed keywords co-occurrence network ($n \geq 1$)



Supplementary Figure S13: Scopus indexed Keywords co-occurrence network ($n \geq 3$) | Items: 407 | Links: 19677 | Total link strength: 33750 | Clusters: 6. All keywords were shown regardless of whether they are connected to each other or not. The digital version is accessible here <https://tinyurl.com/27b8ljky>

Modularity report Scopus indexed keywords co-occurrence net ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

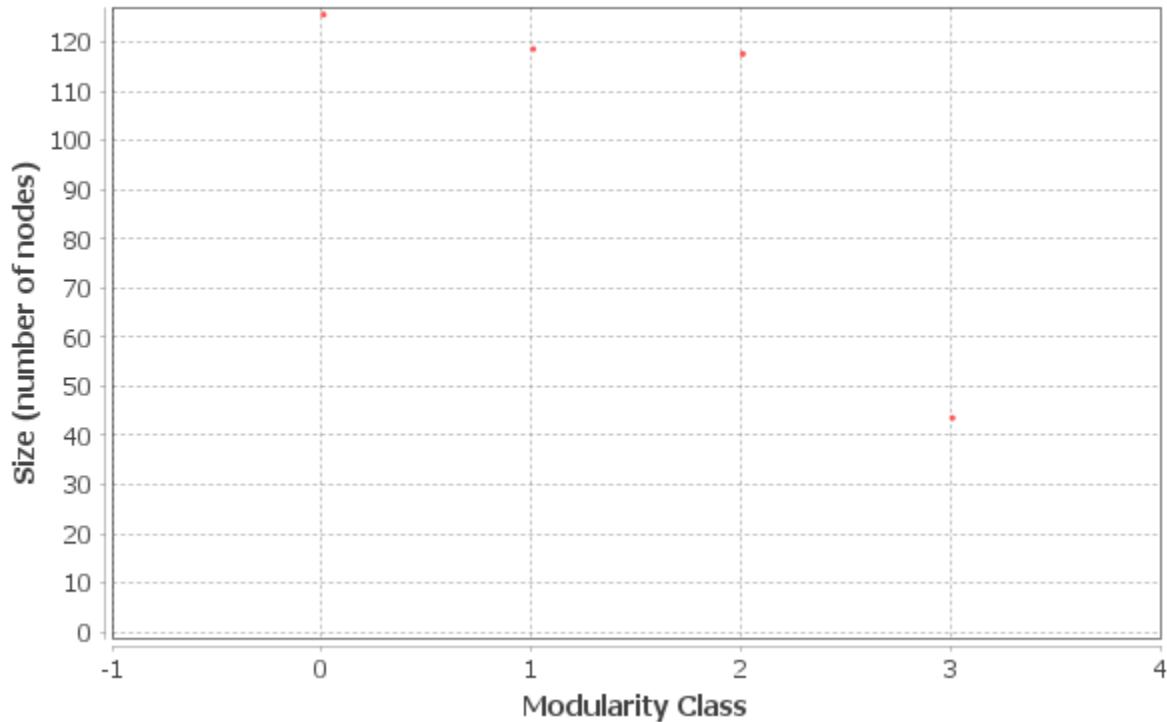
Results:

Modularity: 0.188

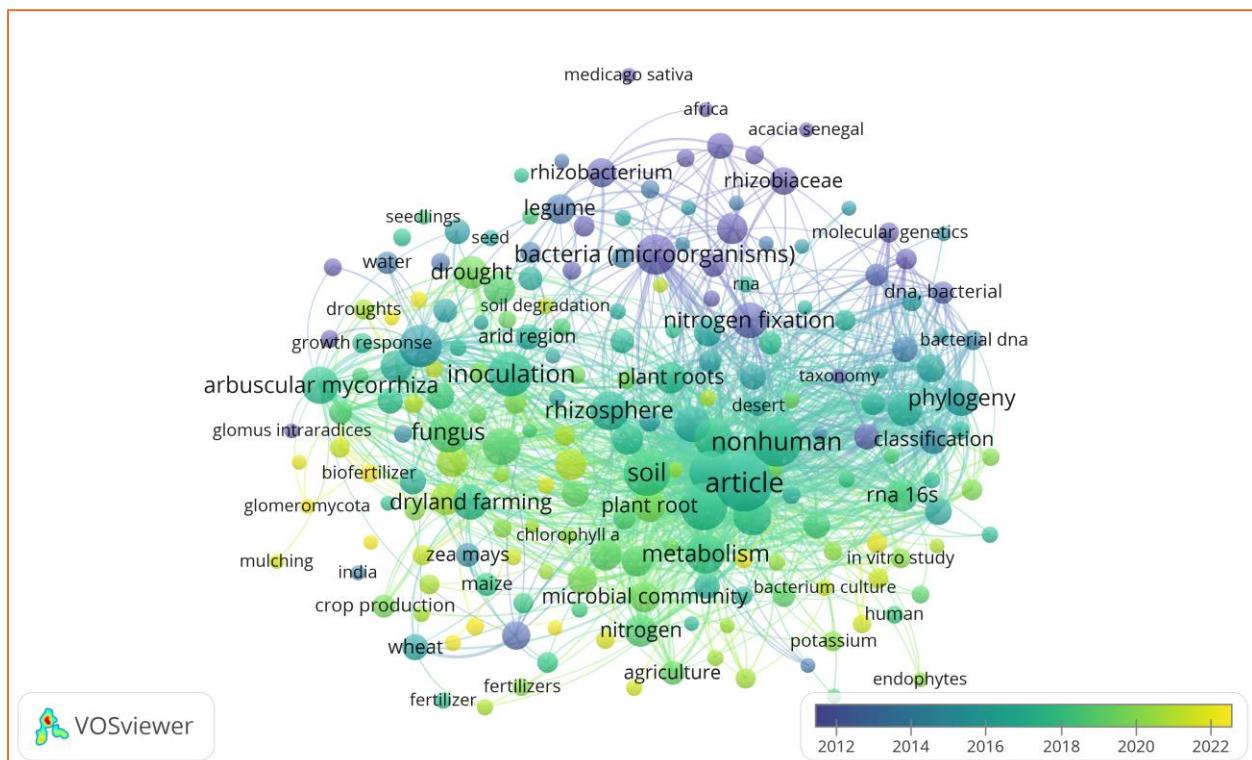
Modularity with resolution: 0.188

Number of Communities: 4

Size Distribution



Supplementary Figure S13A: Modularity report Scopus indexed keywords co-occurrence net ($n \geq 3$)



Supplementary Figure S14: Scopus indexed Keywords co-occurrence network ($n \geq 5$) | Items: 204 | Links: 9186 | Total link strength: 20755 | Clusters: 5. All keywords were shown regardless of whether they are connected to each other or not. The digital version is accessible here <https://tinyurl.com/2b3vpf3v>

Modularity report for Scopus indexed Keywords co-occurrence network ($n \geq 5$)

Parameters:

Randomize: On

Use edge weights: On

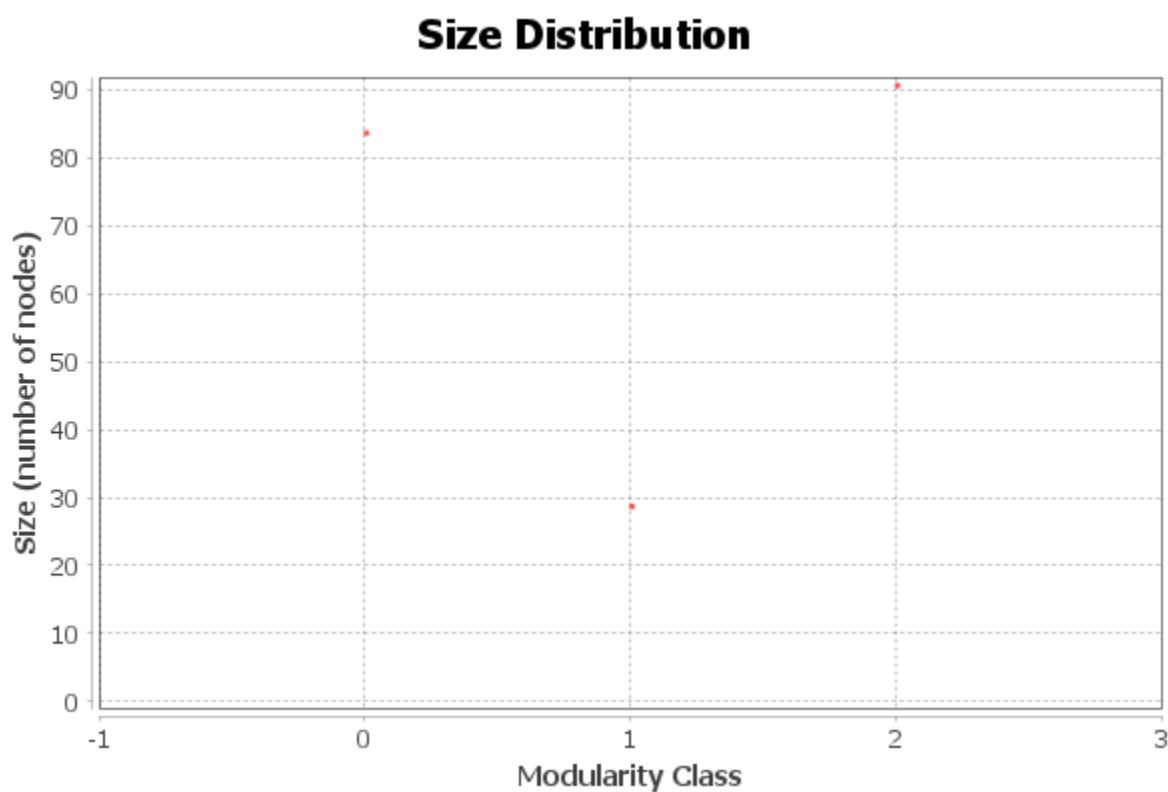
Resolution: 1.0

Results:

Modularity: 0.165

Modularity with resolution: 0.165

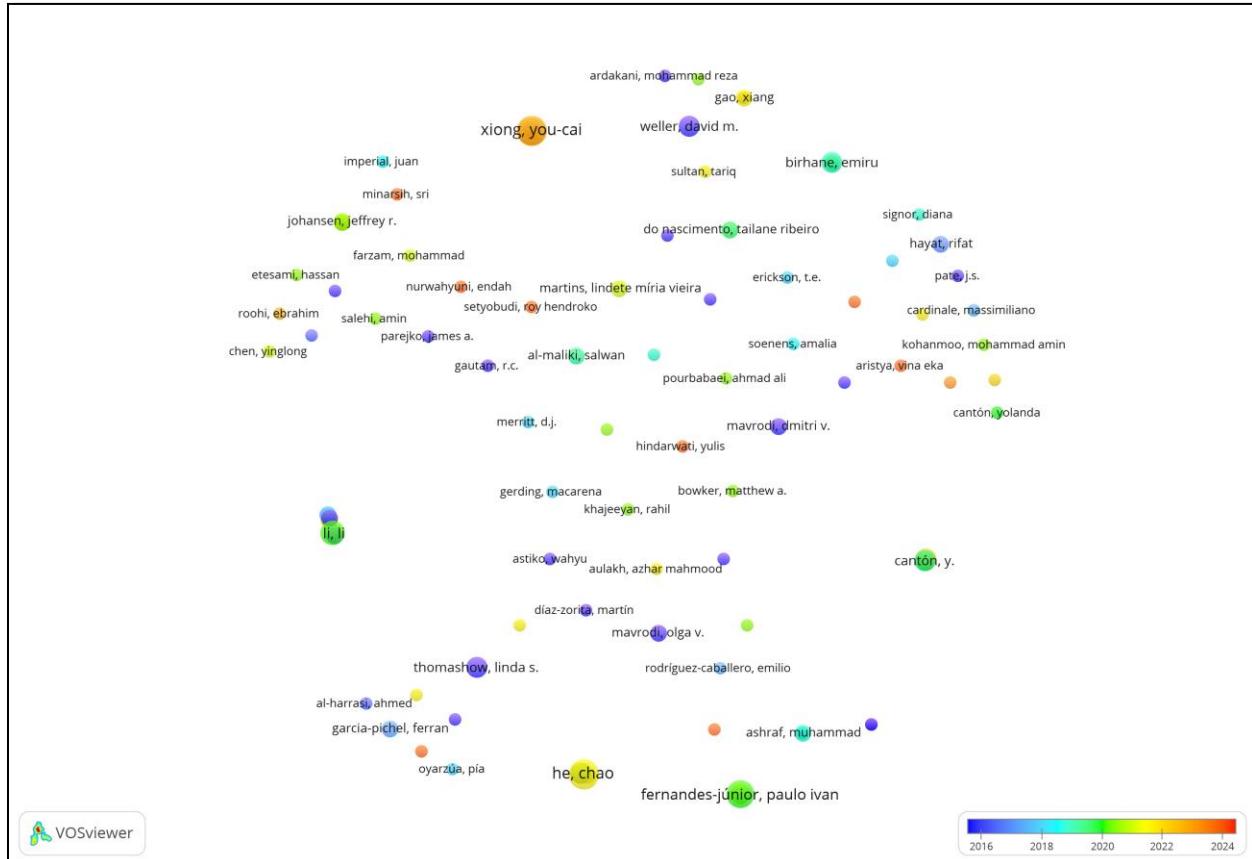
Number of Communities: 3



Supplementary Figure S14A: Modularity report for Scopus indexed Keywords co-occurrence network ($n \geq 5$)

Citations Networks

Scopus and Dimensions citation networks by authors



Supplementary Figure S15: Scopus citation networks by authors ($n \geq 2$). Items: 194 | Links: 291 | Total link strength: 511 | Clusters: 108. The digital version is accessible here <https://tinyurl.com/2cmkqp24>.

Modularity report for Scopus citation networks by authors ($n \geq 2$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

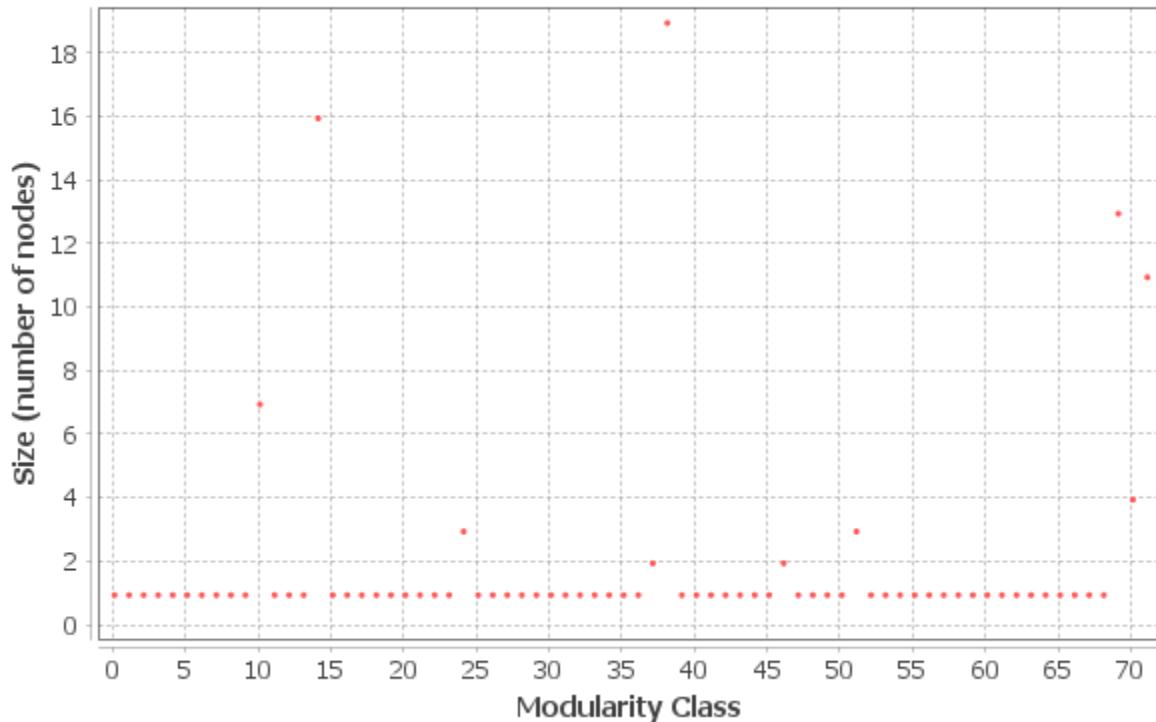
Results:

Modularity: 0.783

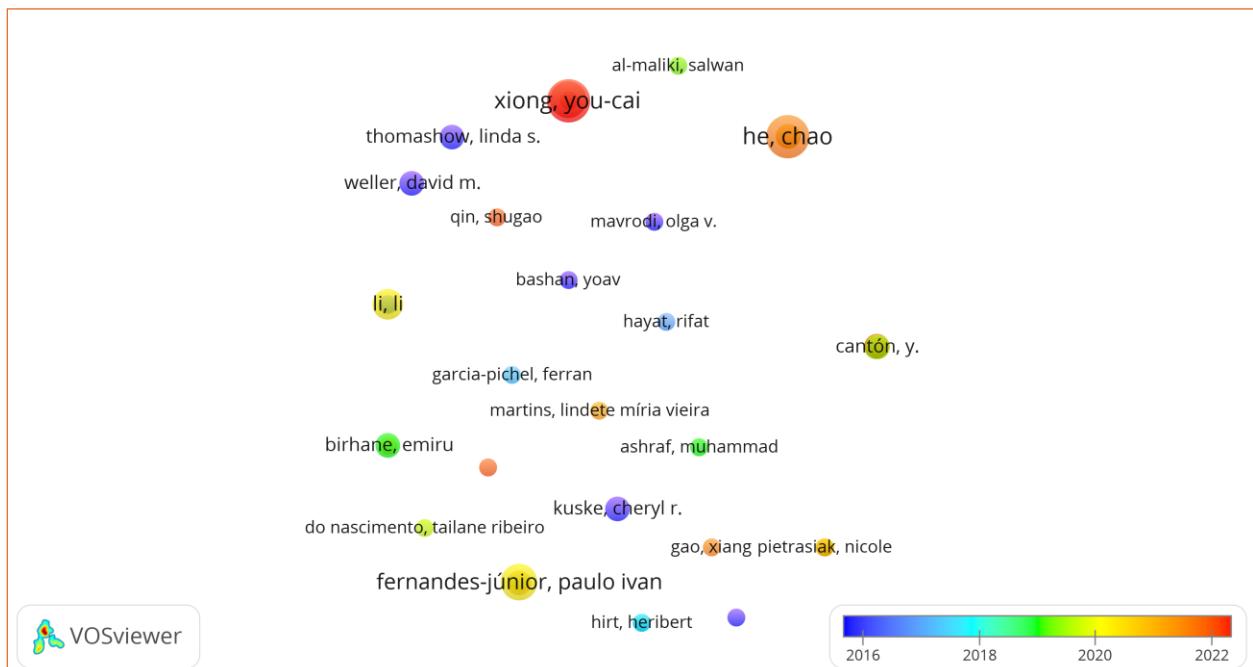
Modularity with resolution: 0.783

Number of Communities: 72

Size Distribution



Supplementary Figure S15A: Modularity report Scopus citation networks by authors (n≥2)



Supplementary Figure S16: Scopus citation networks by authors ($n \geq 3$). Items: 46 | Links: 42 | Total link strength: 106 | Clusters: 23. The digital version is accessible here
<https://tinyurl.com/239ptupu>

Modularity report Scopus citation networks by authors ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

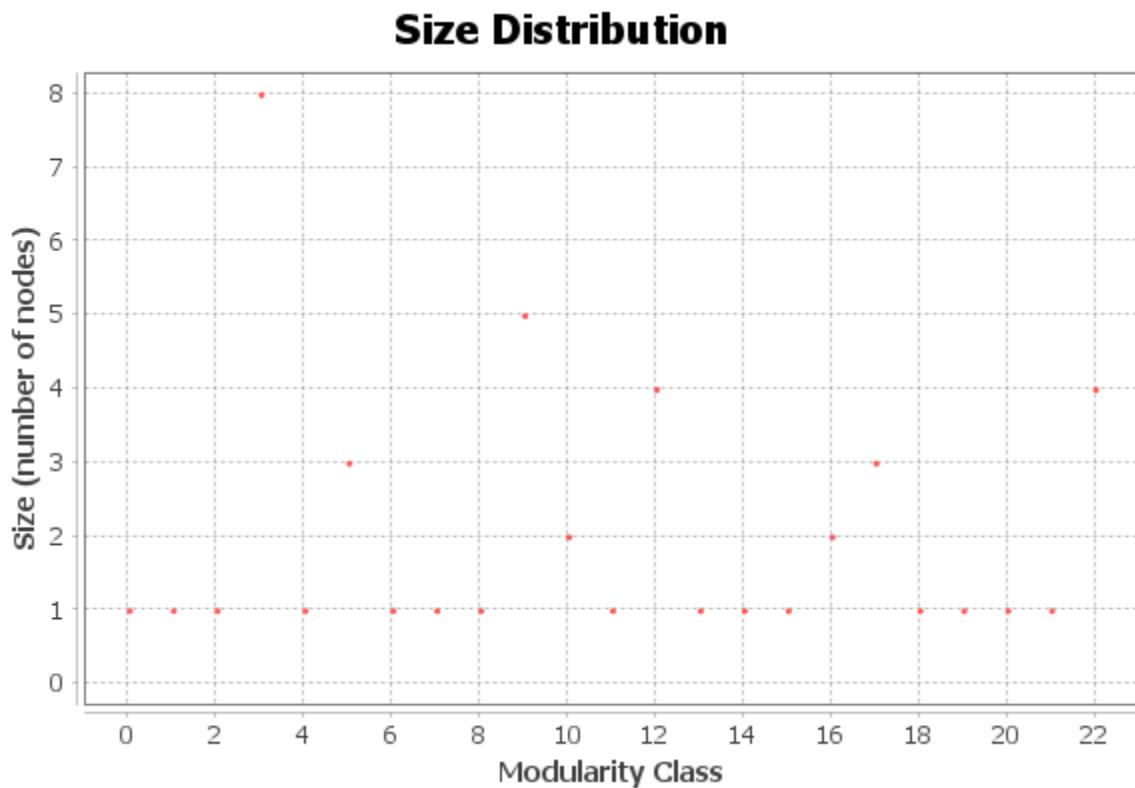
Resolution: 1.0

Results:

Modularity: 0.820

Modularity with resolution: 0.820

Number of Communities: 23



Supplementary Figure S16A: Modularity report Scopus citation networks by authors ($n \geq 3$)



Supplementary Figure S17: Scopus citation networks by authors ($n \geq 5$). Items: 5 | Links: 1 | Total link strength: 7 | Clusters: 4. The digital version is accessible here
<https://tinyurl.com/2ya3y27v>

Modularity report for Scopus citation networks by authors ($n \geq 5$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

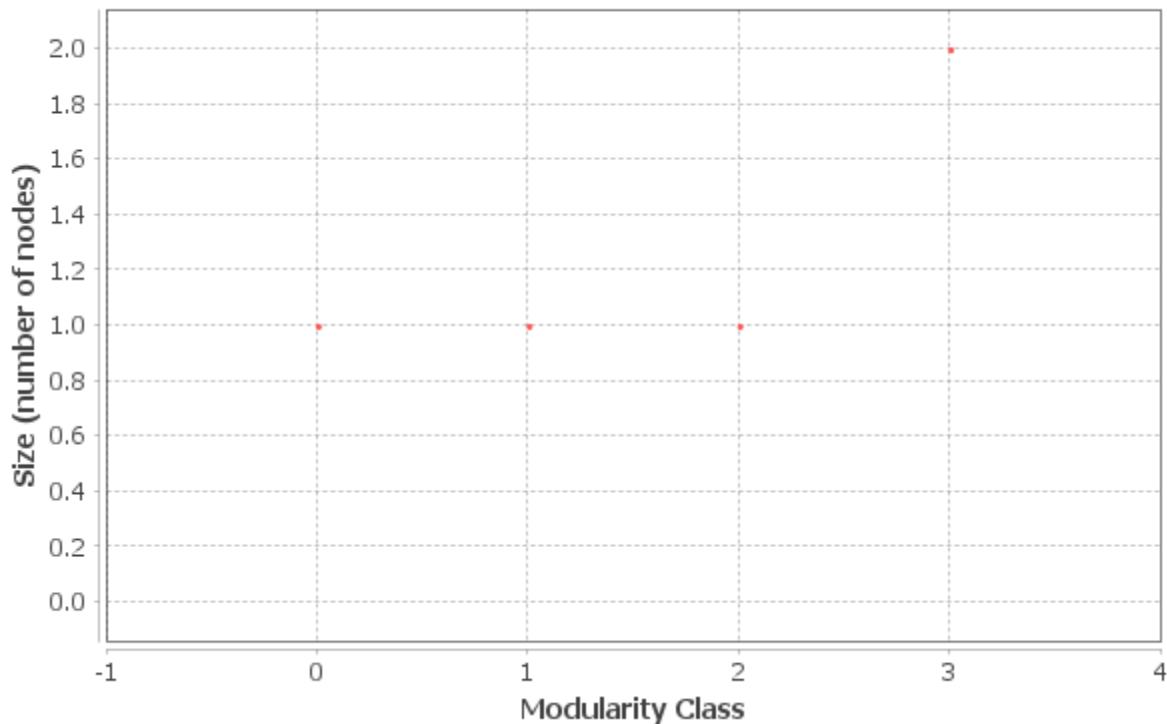
Results:

Modularity: 0.000

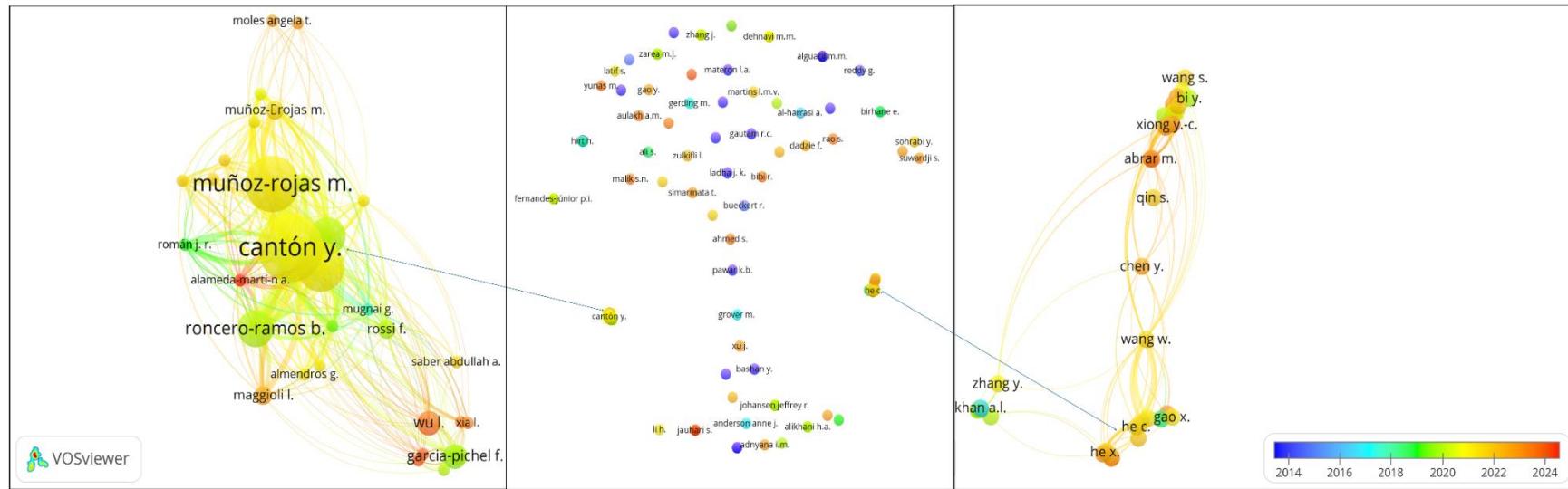
Modularity with resolution: 0.000

Number of Communities: 4

Size Distribution



Supplementary Figure S17A: Modularity report Scopus citation networks by authors ($n \geq 5$)



Supplementary Figure S18: Dimensions dataset citation networks by authors ($n \geq 2$). Items: 169 Links: 593 | Total Link Strength: 1659 Clusters: 64. The digital version is accessible here <https://tinyurl.com/2as2d3kb>

Modularity report for Dimensions citation networks by authors (n ≥ 2)

Parameters:

Randomize: On

Use edge weights: On

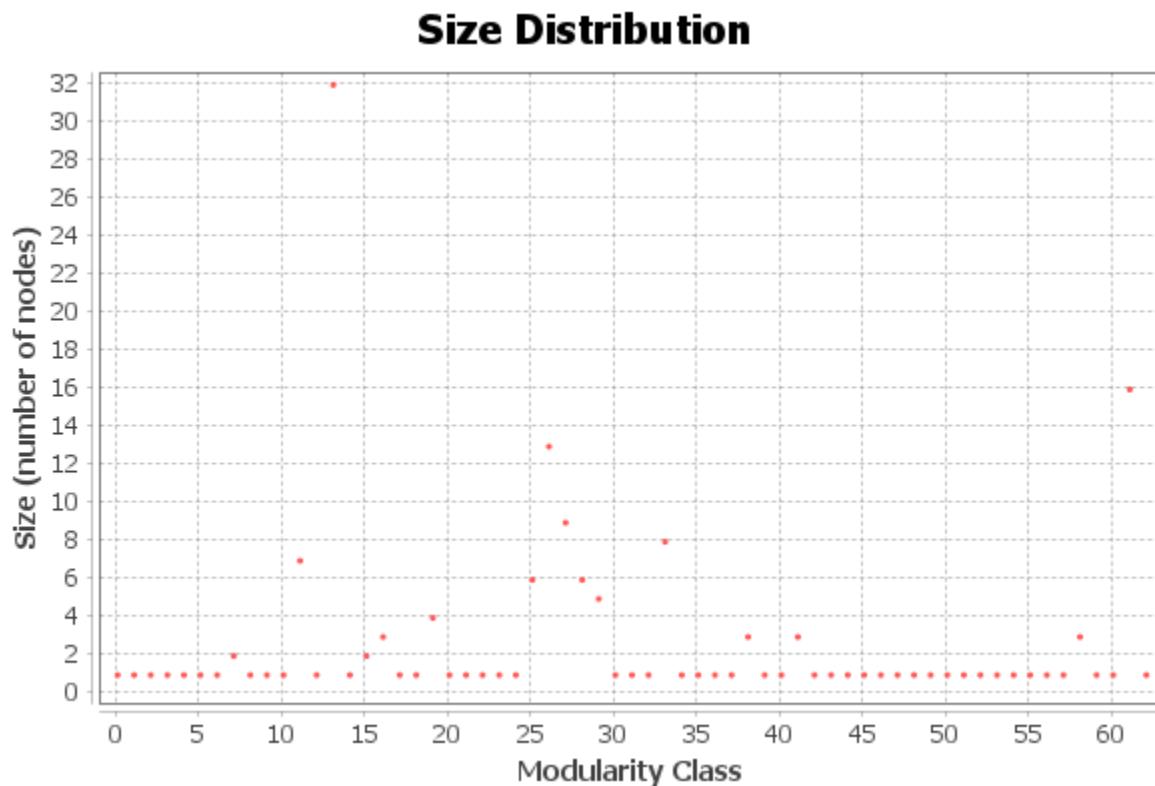
Resolution: 1.0

Results:

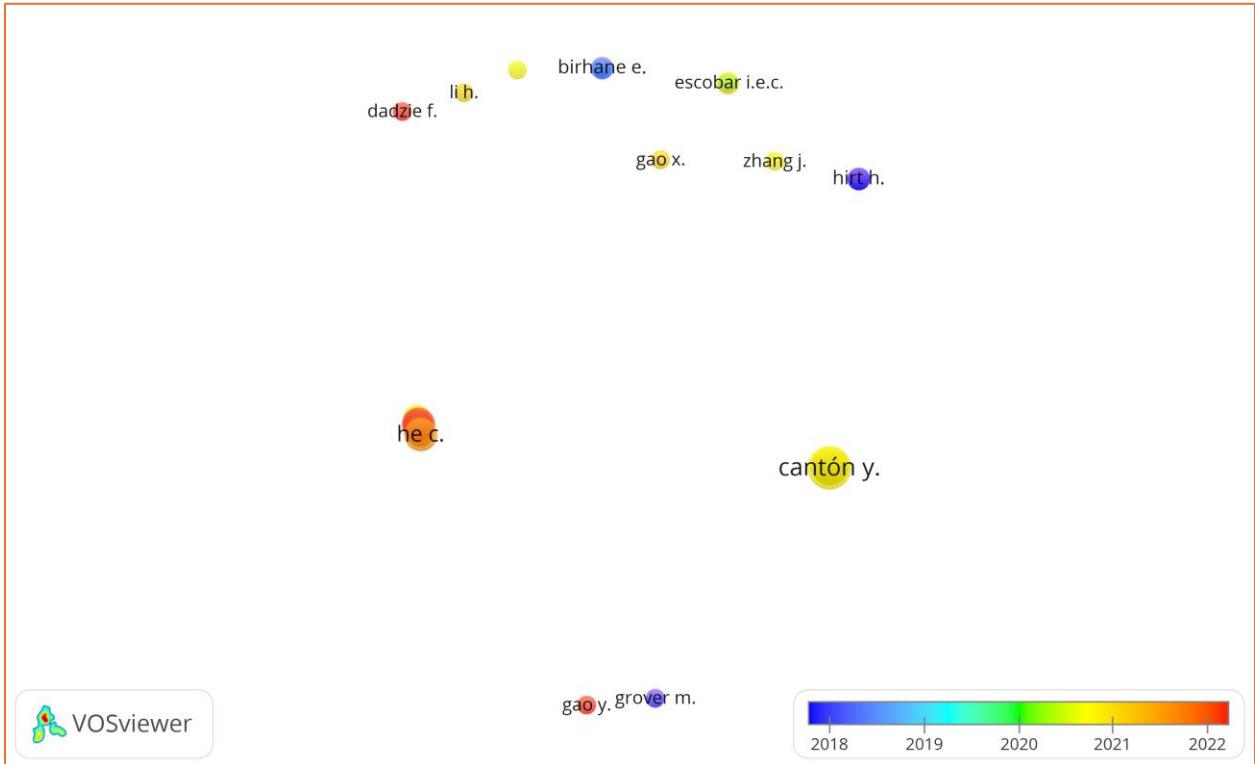
Modularity: 0.534

Modularity with resolution: 0.534

Number of Communities: 63



Supplementary Figure S18A: Modularity report for Dimensions citation networks by authors ($n \geq 2$)



Supplementary Figure S19: Dimensions dataset citation networks by authors ($n \geq 3$). Items: 42
 Links: 113 | Total Link Strength: 624 Clusters: 15. The digital version is accessible here
<https://tinyurl.com/27n8e4vx>

Modularity report for Dimensions citation networks by authors ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

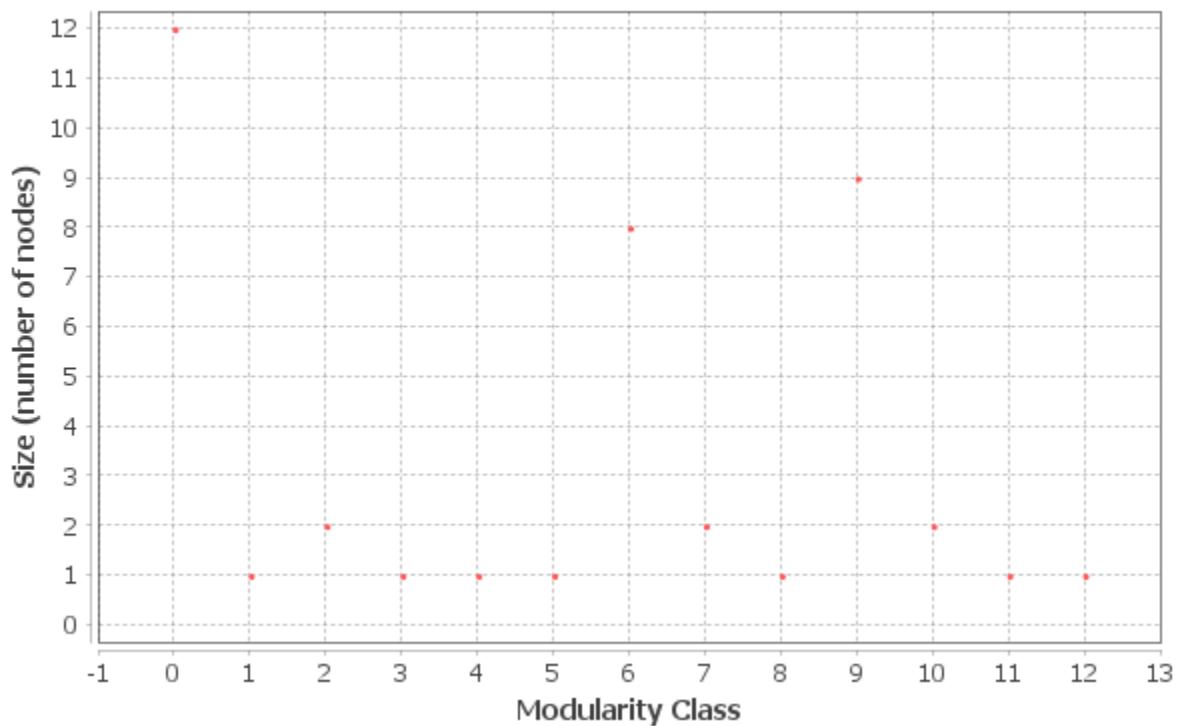
Results:

Modularity: 0.417

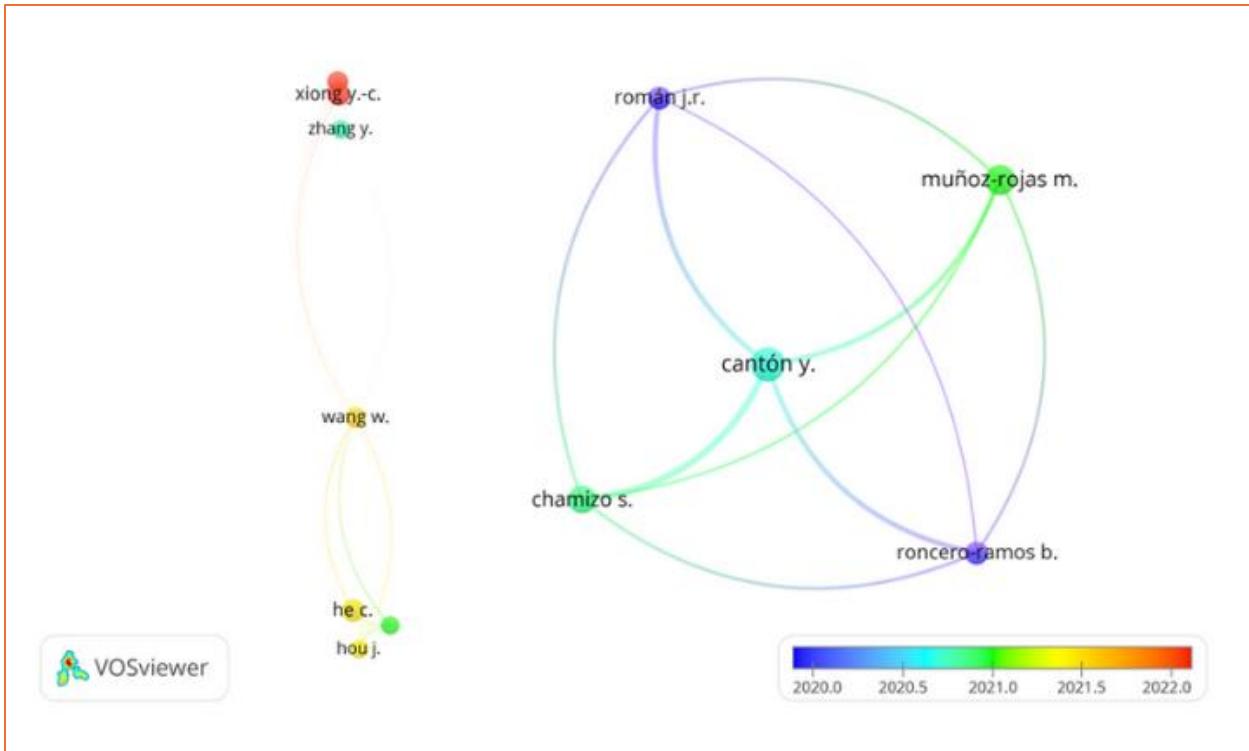
Modularity with resolution: 0.417

Number of Communities: 13

Size Distribution



Supplementary Figure S19A: Modularity report for Dimensions dataset citation networks by authors ($n \geq 3$)



Supplementary Figure S20: Dimensions dataset citation networks by authors ($n \geq 5$). Items: 12
 Links: 22 | Total Link Strength: 327 Clusters: 2. The digital version is accessible here
<https://tinyurl.com/298klxys>

Modularity report for Dimensions citation networks by authors ($n \geq 5$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

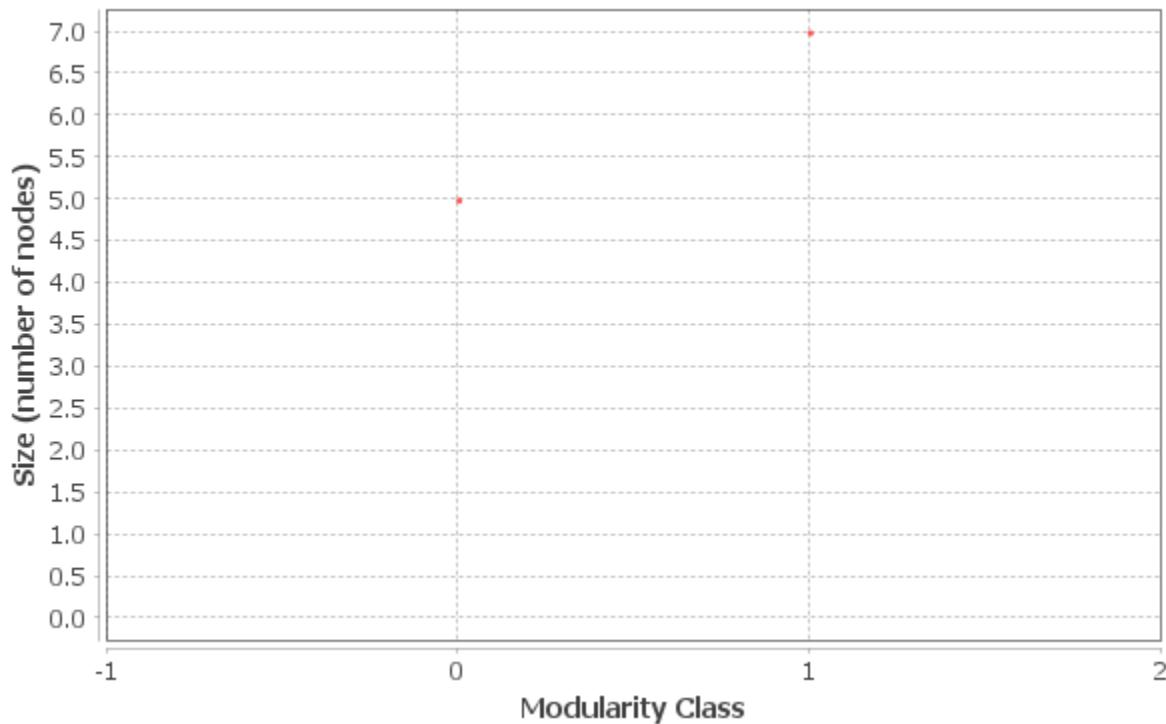
Results:

Modularity: 0.340

Modularity with resolution: 0.340

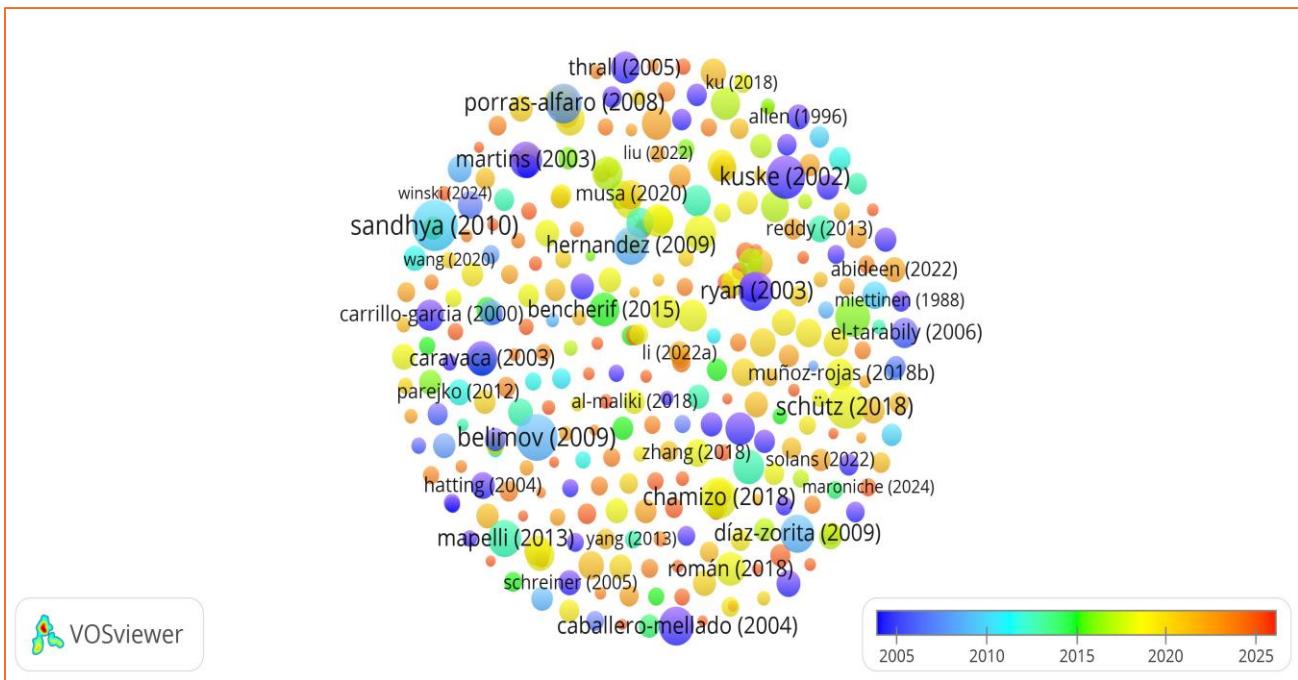
Number of Communities: 2

Size Distribution



Supplementary Figure S20A: Modularity report for Dimensions citation networks by authors ($n \geq 5$)

Scopus and Dimensions citation networks by articles



Supplementary Figure S21: Scopus citation networks by article ($n \geq 1$). Items: 306 | Links: 57 | Total link strength: 57 | Clusters: 259. The digital version is accessible here <https://tinyurl.com/26uknlmt>

Modularity report Scopus citation networks by article ($n \geq 1$)

Parameters:

Randomize: On

Use edge weights: On

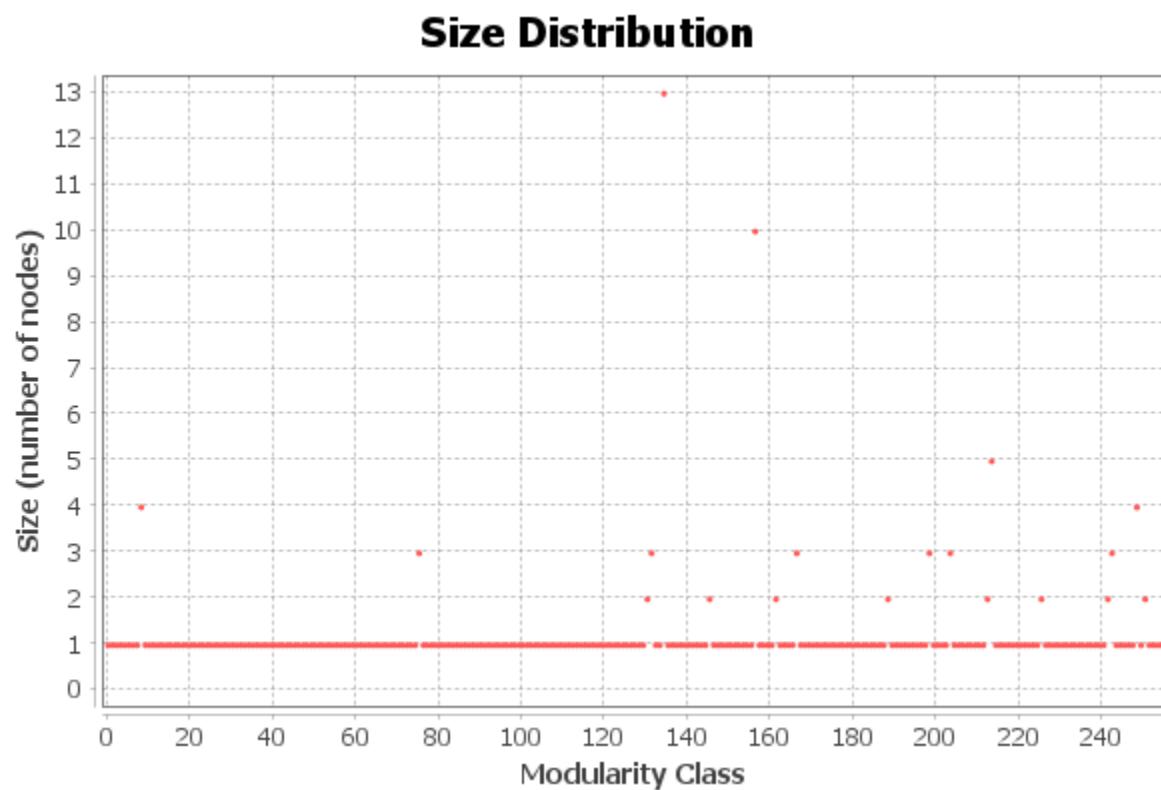
Resolution: 1.0

Results:

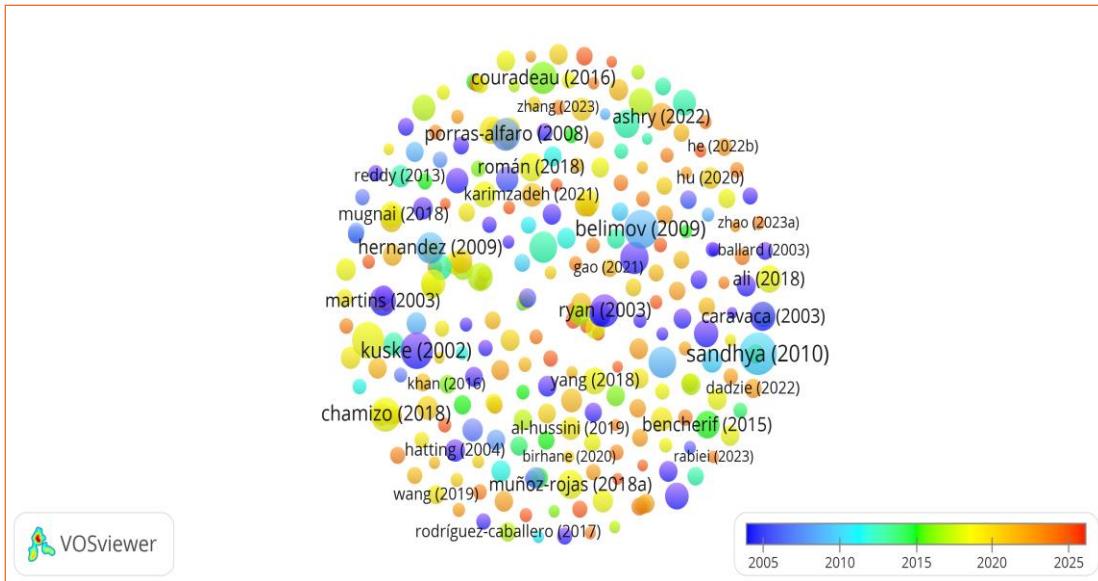
Modularity: 0.872

Modularity with resolution: 0.872

Number of Communities: 255



Supplementary Figure S21A: Modularity report Scopus citation networks by article ($n \geq 1$)



Supplementary Figure S22: Scopus citation networks by article ($n \geq 3$). Items: 267 | Links: 52 | Total link strength: 52 | Clusters: 223. The digital version is accessible here <https://tinyurl.com/22ctz2qu>

Modularity report Scopus citation networks by article ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

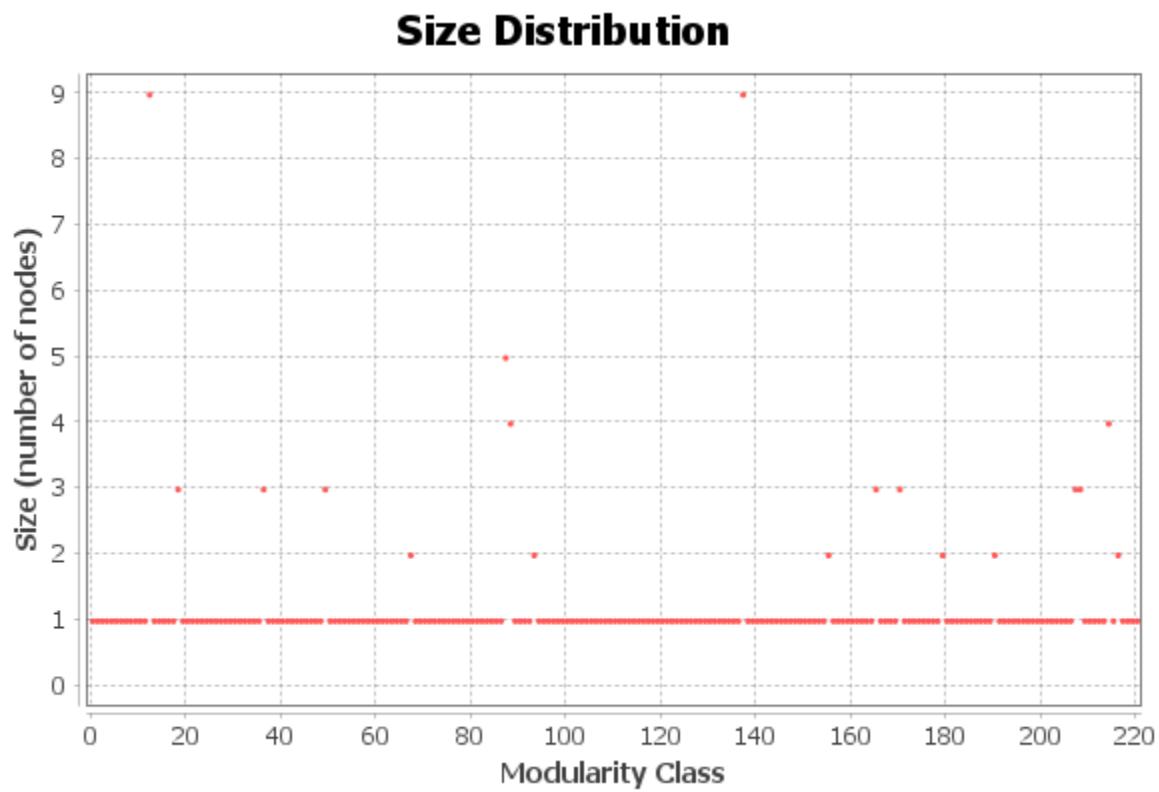
Resolution: 1.0

Results:

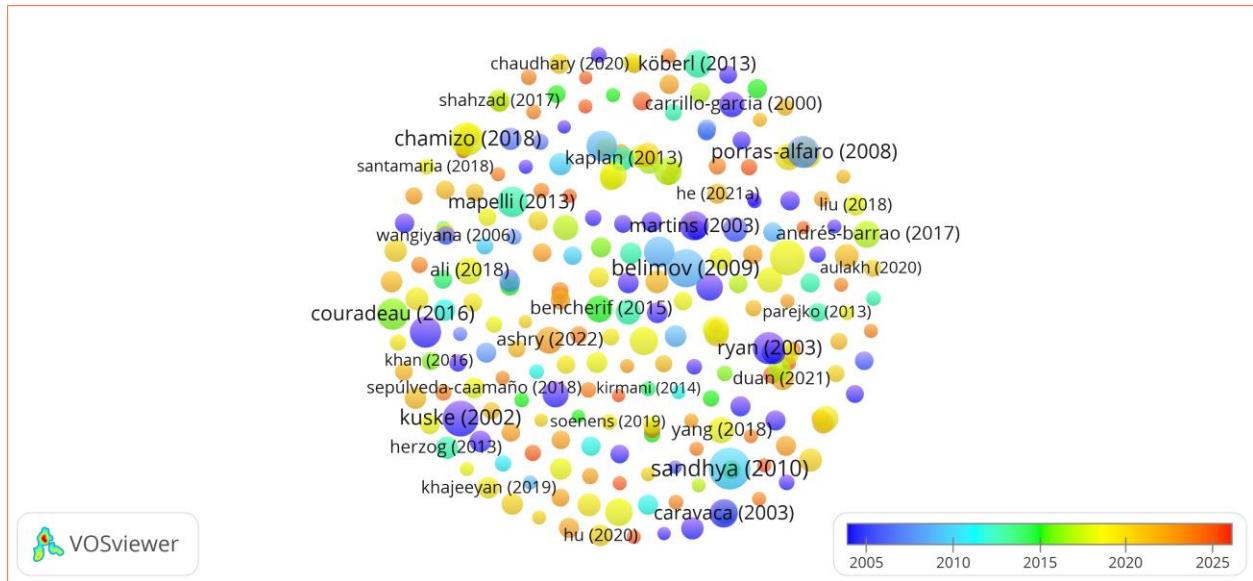
Modularity: 0.875

Modularity with resolution: 0.875

Number of Communities: 221



Supplementary Figure S22A: Modularity report Scopus citation networks by article ($n \geq 3$)



Supplementary Figure S23: Scopus citation networks by article ($n \geq 5$). Items: 238 | Links: 50 | Total link strength: 50 | Clusters: 195. The digital version is accessible here <https://tinyurl.com/23x23vgw>

Modularity report Scopus citation networks by article ($n \geq 5$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

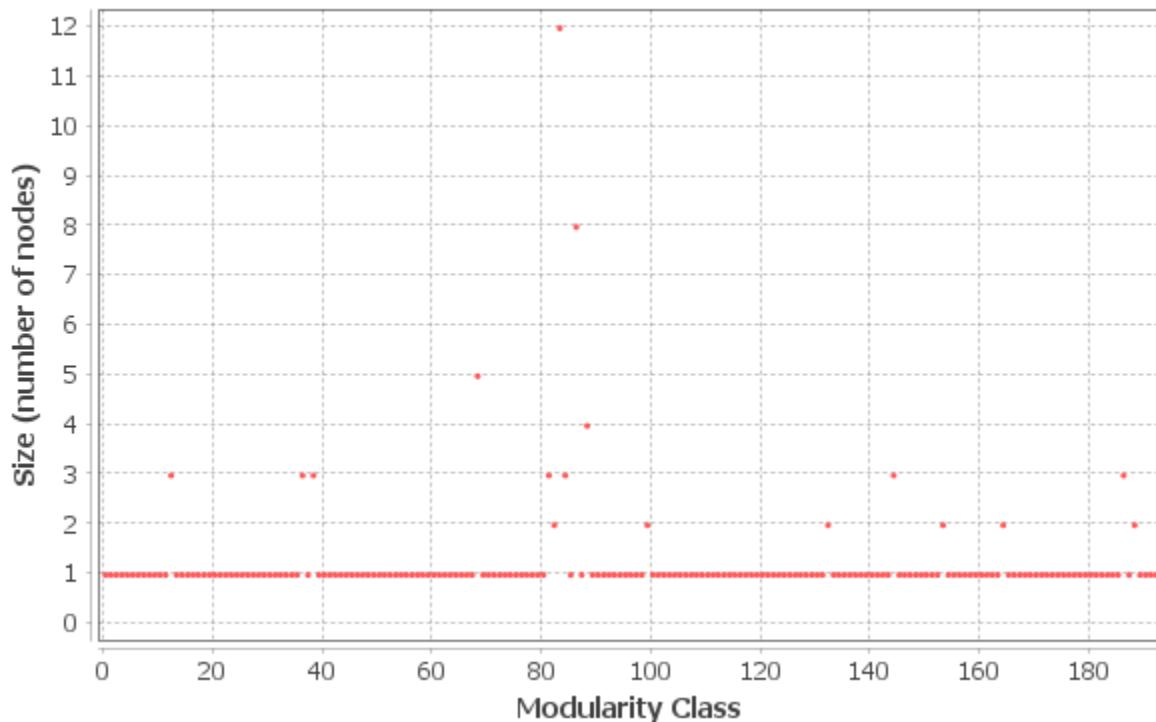
Results:

Modularity: 0.874

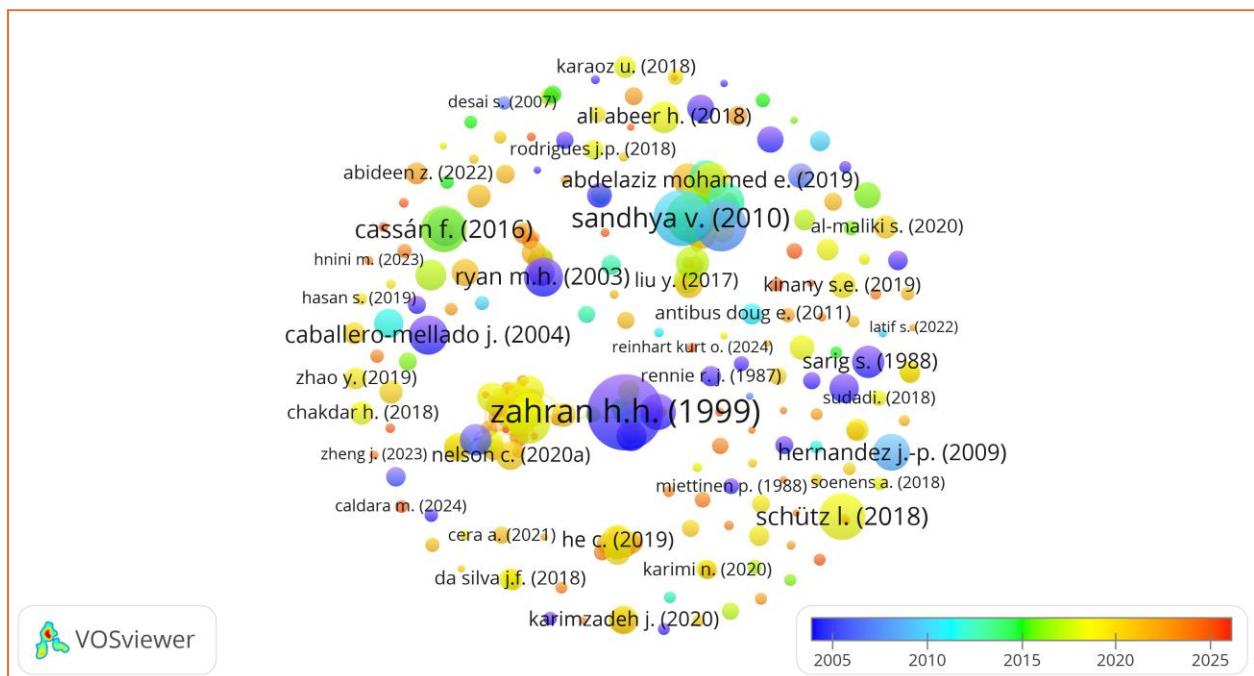
Modularity with resolution: 0.874

Number of Communities: 193

Size Distribution



Supplementary Figure S23A: Modularity report Scopus citation networks by article ($n \geq 5$)



Supplementary Figure S24: Dimensions dataset citation networks by article ($n \geq 1$). Items: 249 | Links: 191 | Clusters: 153. The digital version is accessible here <https://tinyurl.com/28f69hu2>

Modularity report for Dimensions dataset citation networks by article ($n \geq 1$)

Parameters:

Randomize: On

Use edge weights: On

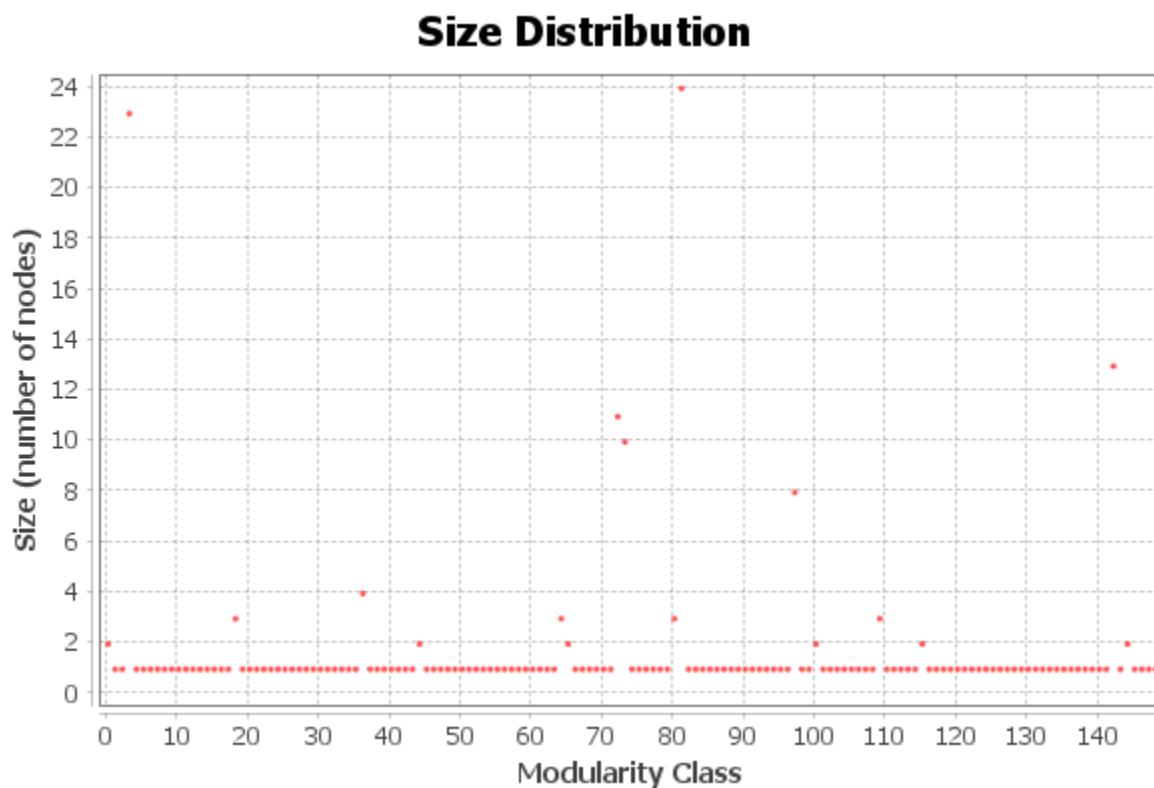
Resolution: 1.0

Results:

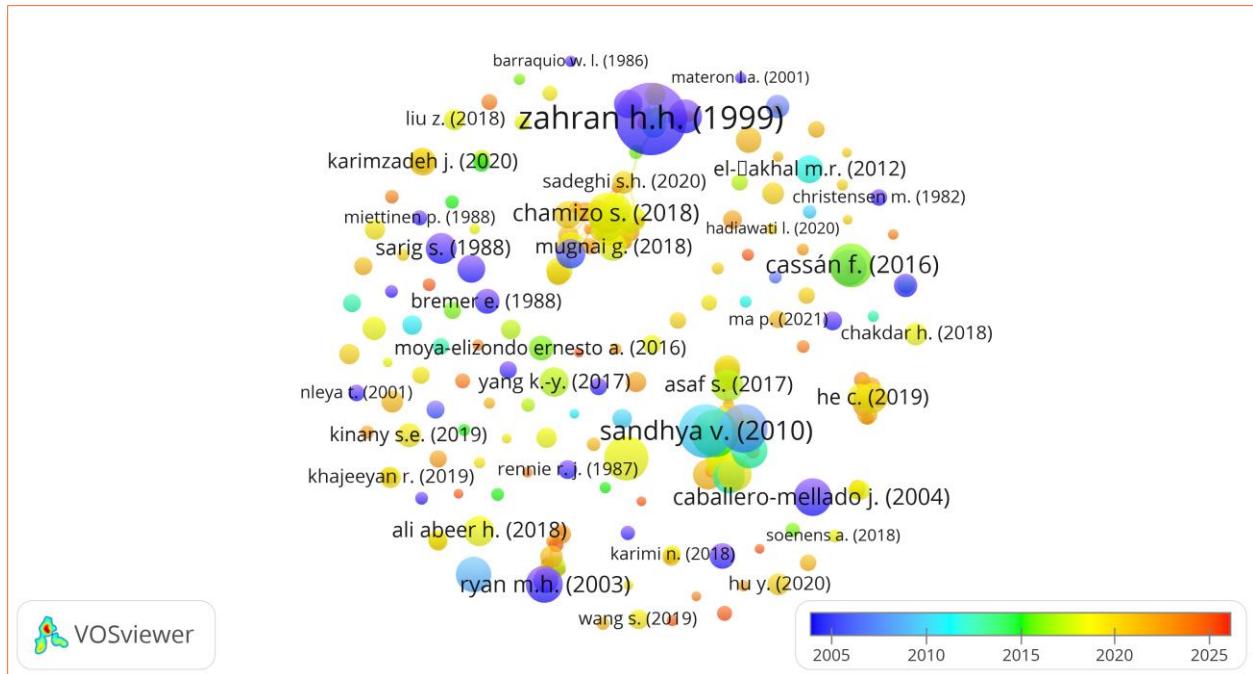
Modularity: 0.673

Modularity with resolution: 0.673

Number of Communities: 149



Supplementary Figure S24A: Modularity report for Dimensions dataset citation networks by article ($n \geq 1$)



Supplementary Figure S25: Dimensions dataset citation networks by article ($n \geq 3$). Items: 210| Links: 162| Clusters: 124. The digital version is accessible here <https://tinyurl.com/28a8g3mk>

Modularity report for Dimensions dataset citation networks by article ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

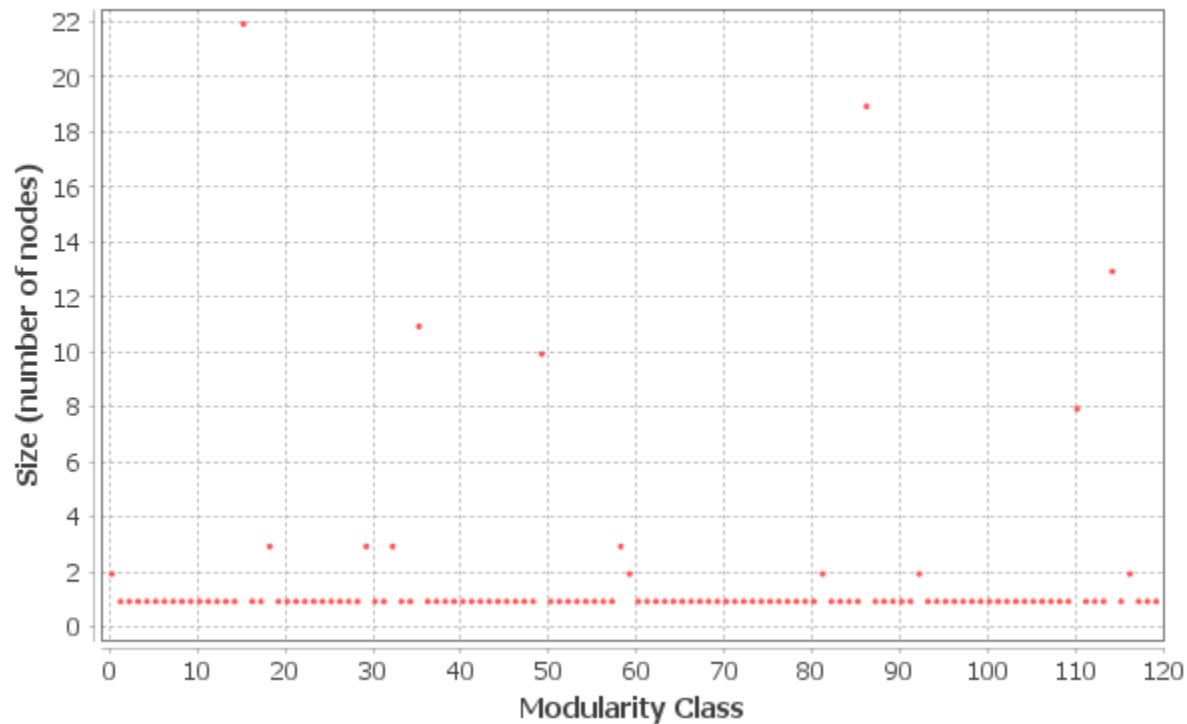
Results:

Modularity: 0.706

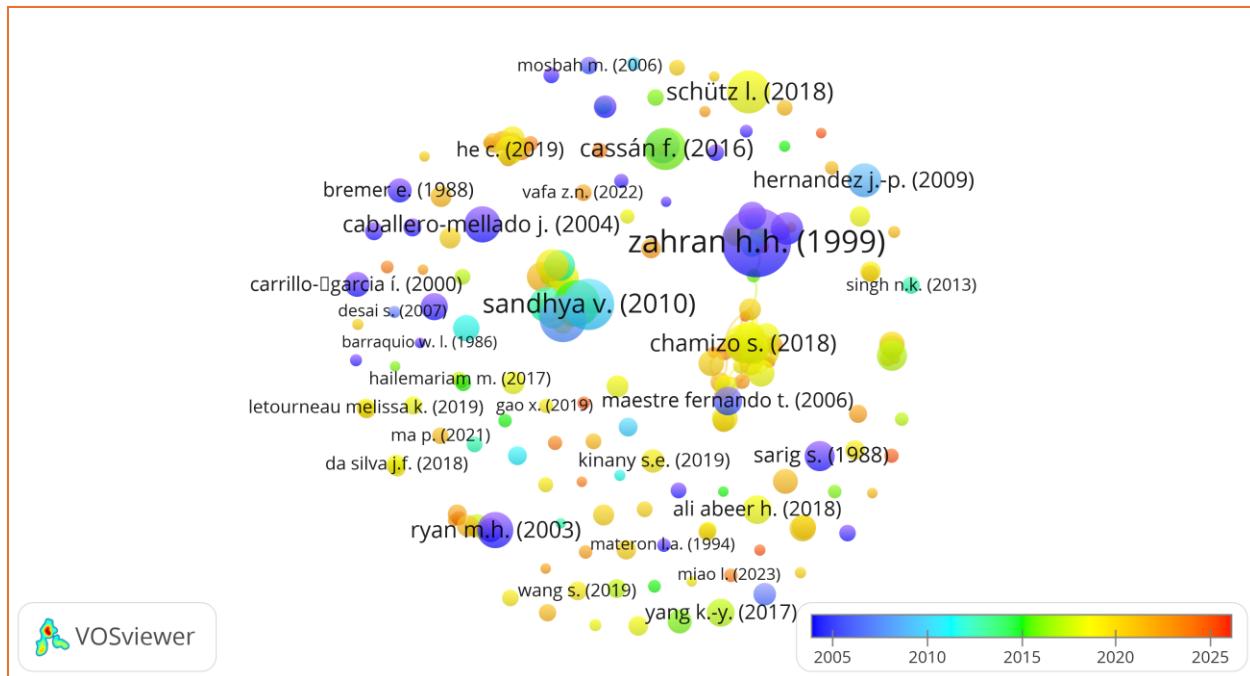
Modularity with resolution: 0.706

Number of Communities: 120

Size Distribution



Supplementary Figure S25A: Modularity report for Dimensions dataset citation networks by article ($n \geq 3$)



Supplementary Figure S26: Dimensions dataset citation networks by article ($n \geq 5$). Items: 187
Links: 147 | Clusters: 109. The digital version is accessible here <https://tinyurl.com/259amr3b>

Modularity report for Dimensions citation networks by article ($n \geq 5$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

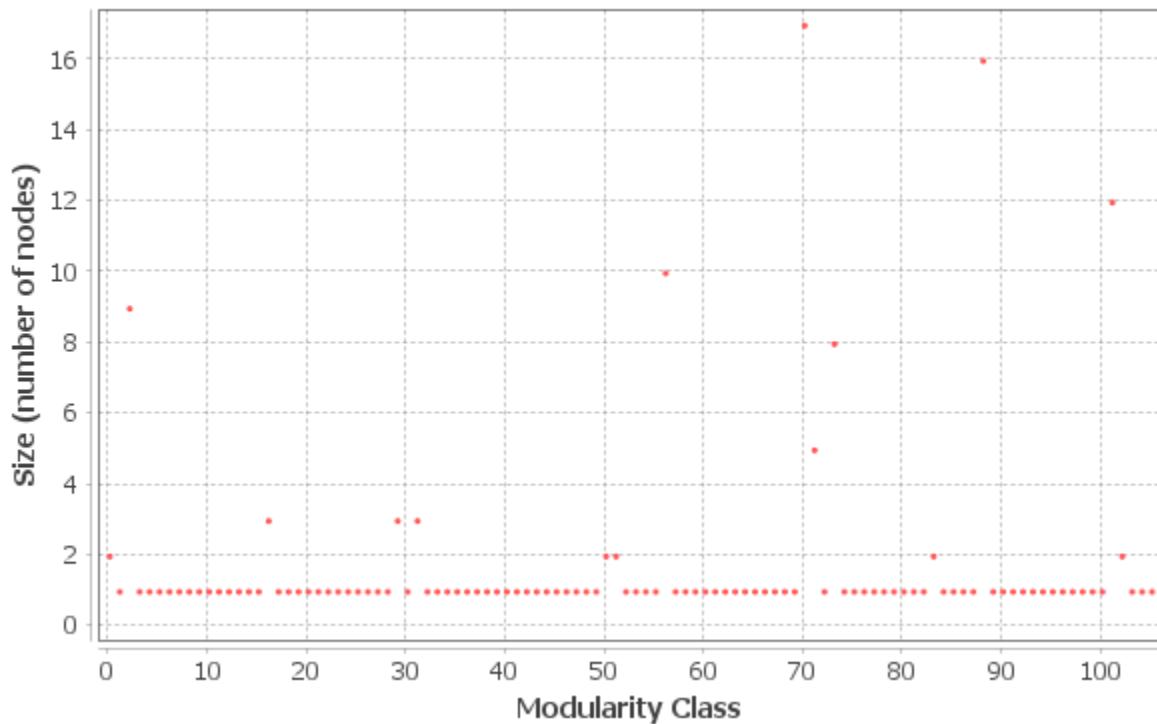
Results:

Modularity: 0.717

Modularity with resolution: 0.717

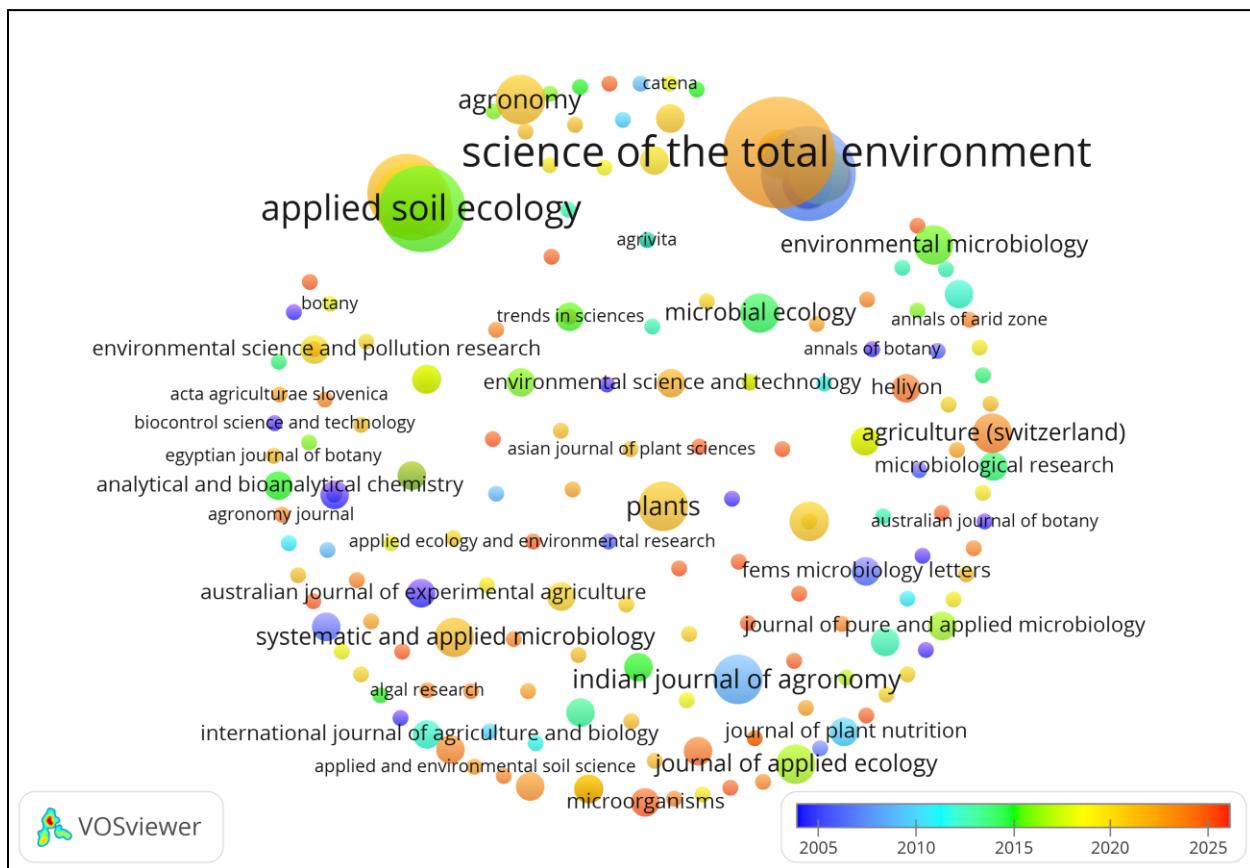
Number of Communities: 106

Size Distribution



Supplementary Figure S26A: Modularity report for Dimensions citation networks by article (n ≥ 5)

Scopus and Dimensions citation networks by journal sources



Supplementary Figure S27: Scopus citation networks by journal sources ($n \geq 1$). Items: 197 | Links: 49 | Total link strength: 52 | Clusters: 158. The digital version is accessible here <https://tinyurl.com/26hrae9s>.

Modularity report for Scopus citation networks by journal sources ($n \geq 1$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

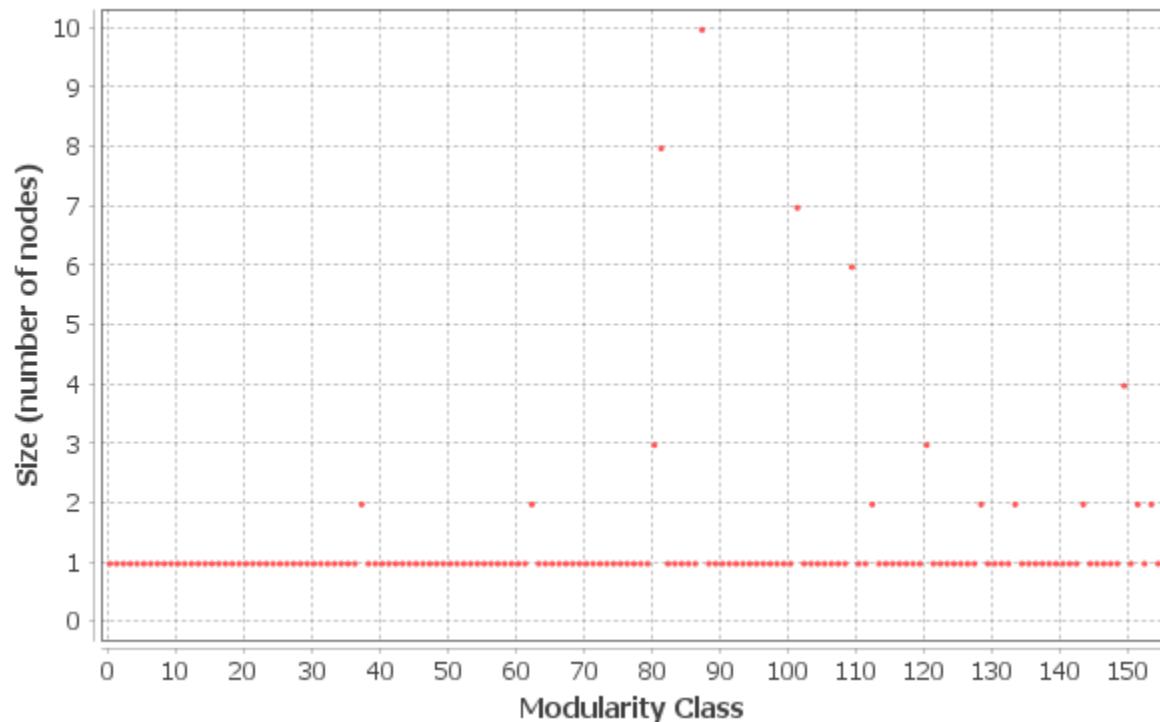
Results:

Modularity: 0.784

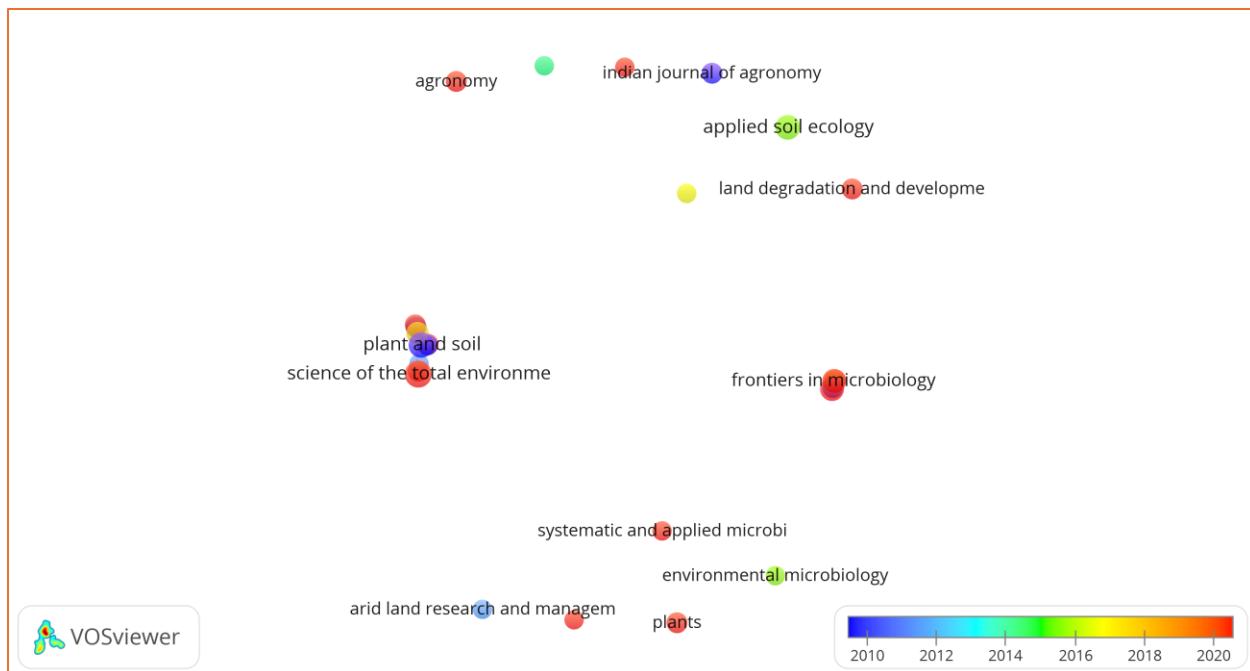
Modularity with resolution: 0.784

Number of Communities: 155

Size Distribution



Supplementary Figure S27A: Modularity report for Scopus citation networks by journal sources ($n \geq 1$)



Supplementary Figure S28: Scopus citation networks by journal sources ($n \geq 3$). Items: 26 | Links: 12 | Total link strength: 14 | Clusters: 17. The digital version is accessible here <https://tinyurl.com/24ru84pl>

Modularity report for Scopus citation networks by journal sources ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

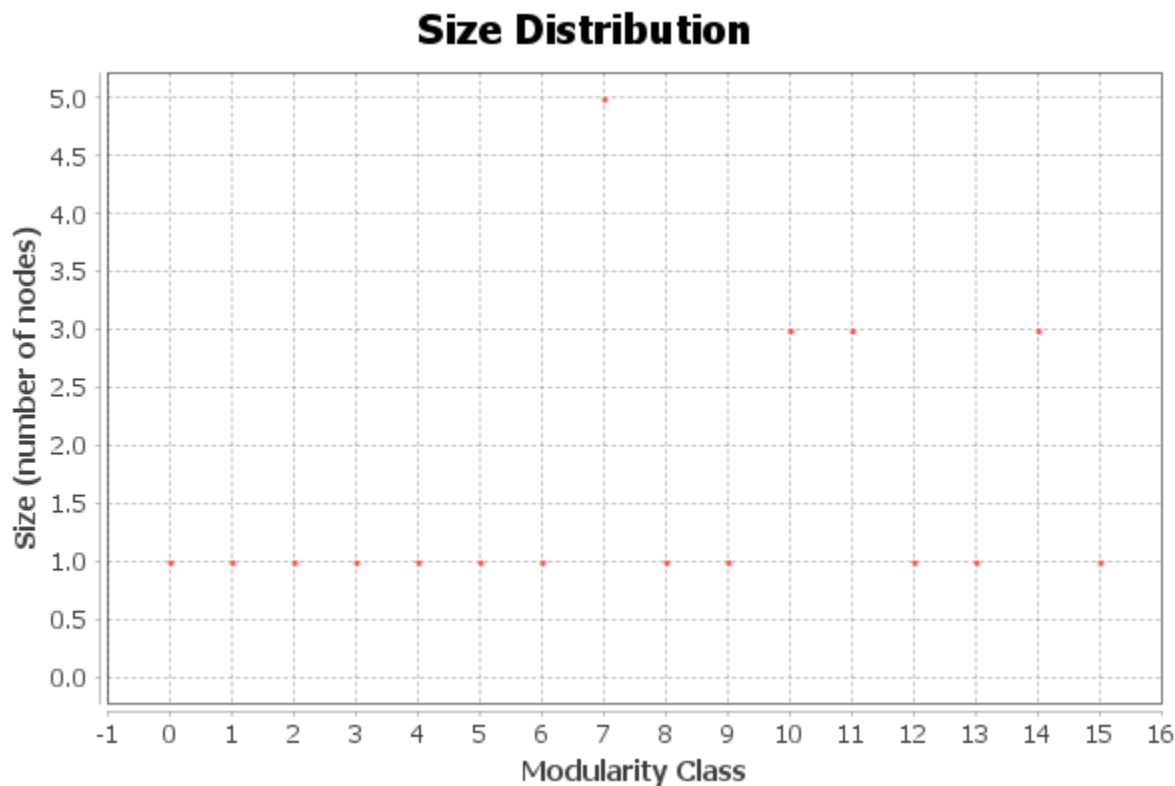
Resolution: 1.0

Results:

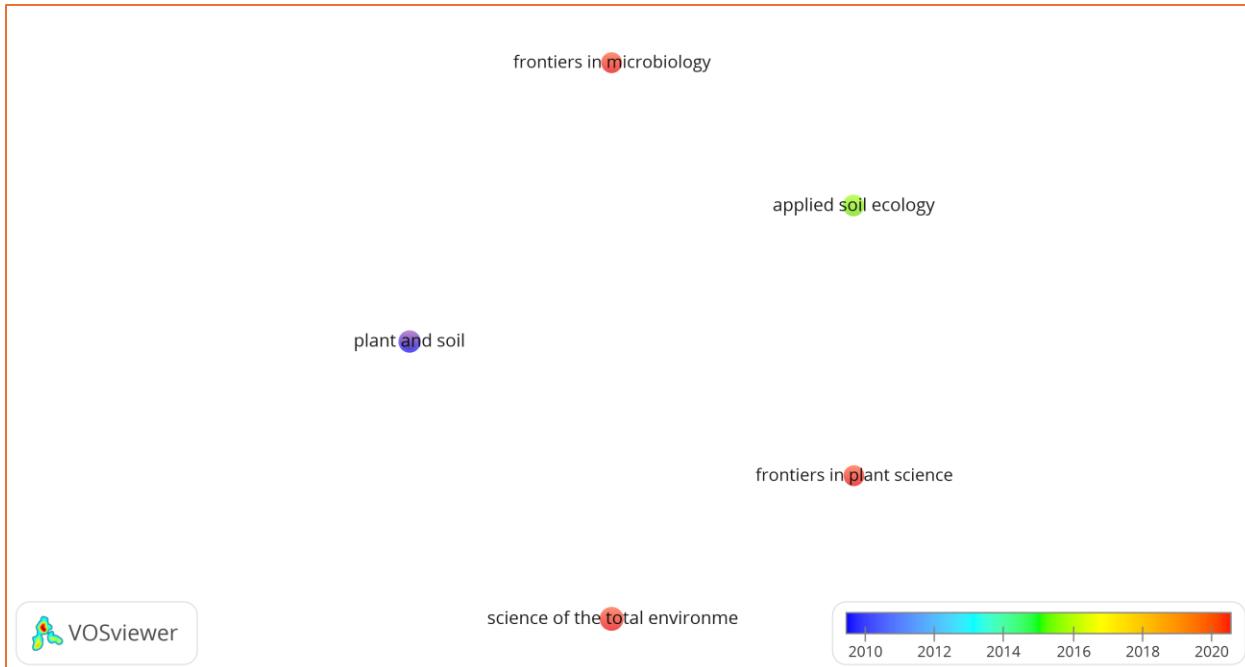
Modularity: 0.589

Modularity with resolution: 0.589

Number of Communities: 16



Supplementary Figure S28A: Modularity report for Scopus citation networks by journal sources ($n \geq 3$)



Supplementary Figure S29: Scopus citation networks by journal sources ($n \geq 5$). Items: 6 | Links: 1 | Clusters: 5. The digital version is accessible here <https://tinyurl.com/2y6vh5k7>

Modularity report for Scopus citation networks by journal sources ($n \geq 5$)

Parameters:

Randomize: On

Use edge weights: On

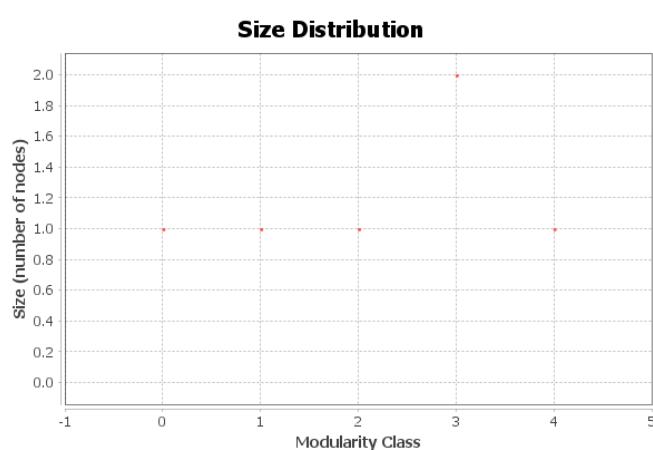
Resolution: 1.0

Results:

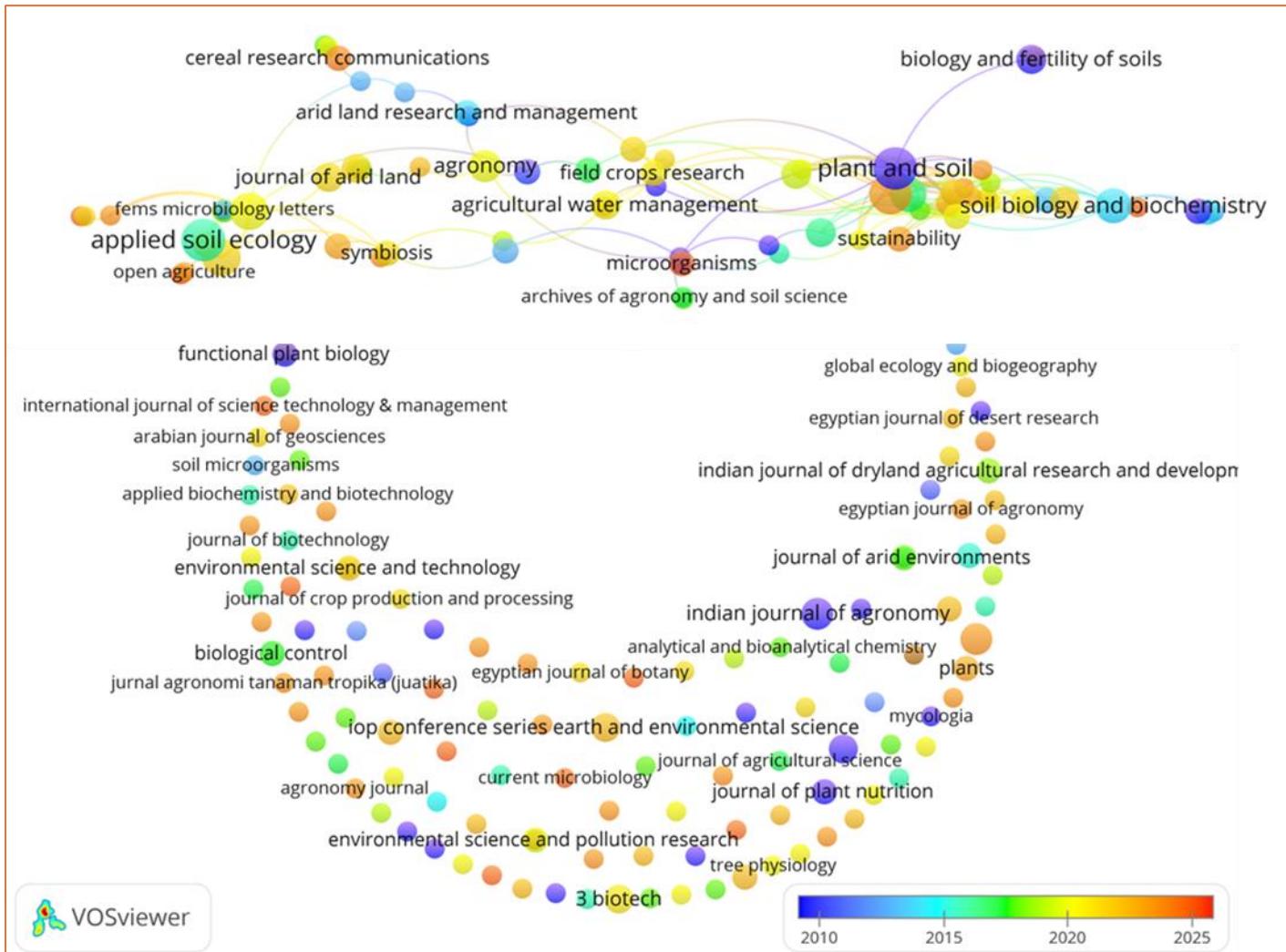
Modularity: 0.000

Modularity with resolution: 0.000

Number of Communities: 5



Supplementary Figure S29A: Modularity report for Scopus citation networks by journal sources ($n \geq 5$)



Supplementary Figure S30: Dimensions dataset citation networks by journal sources ($n \geq 1$).
 Items: 190 Links: 155 | Total Link Strength: 184 Clusters: 123. The digital version is accessible here <https://tinyurl.com/24dgxwly>

Modularity report for Dimensions citation networks by journal sources (n ≥ 1)

Parameters:

Randomize: On

Use edge weights: On

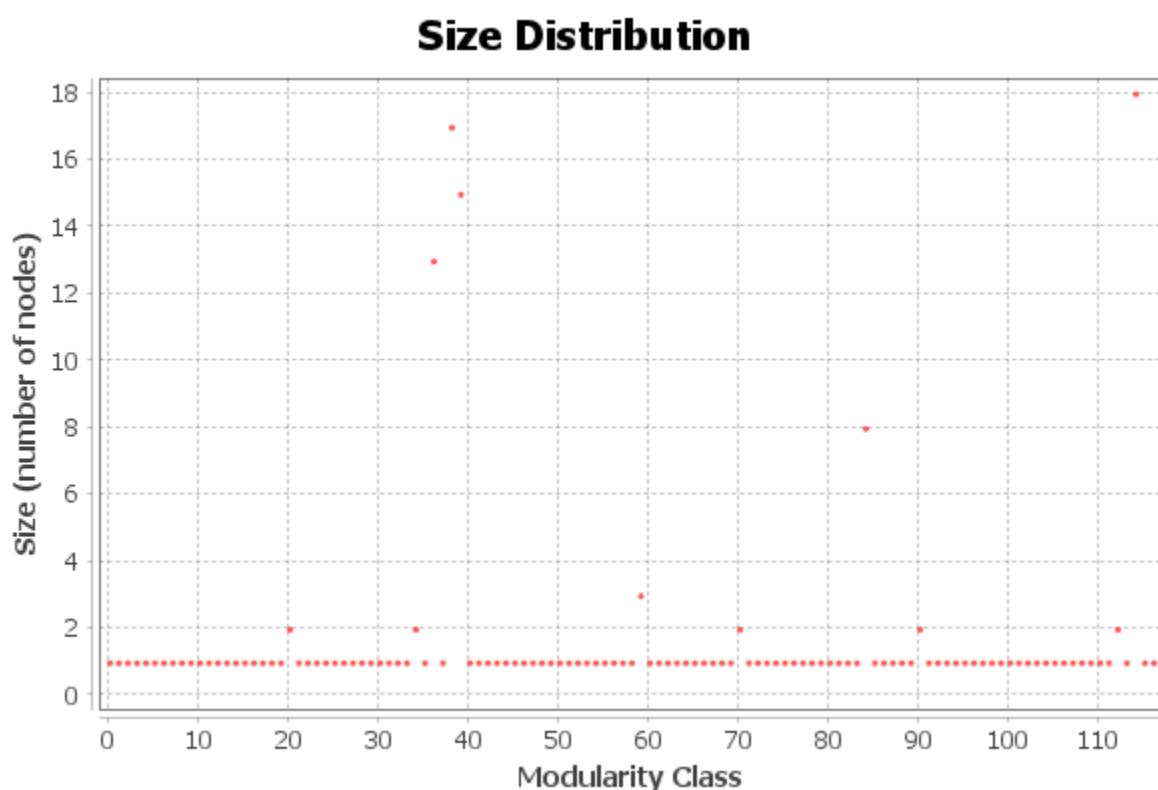
Resolution: 1.0

Results:

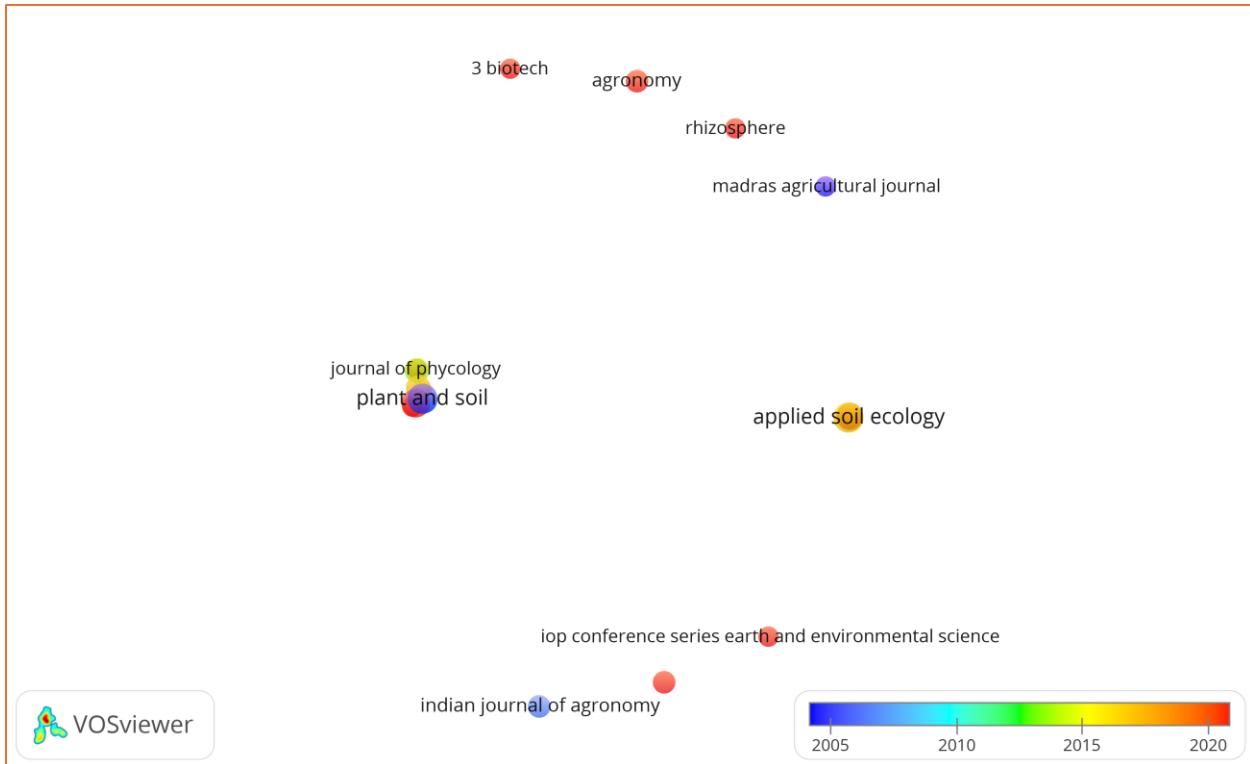
Modularity: 0.512

Modularity with resolution: 0.512

Number of Communities: 117



Supplementary Figure S30A: Modularity report for Dimensions citation networks by journal sources ($n \geq 1$)



Supplementary Figure S31: Dimensions dataset citation networks by journal sources ($n \geq 3$). Items: 20 Links: 15 | Total Link Strength: 21 Clusters: 12. The digital version is accessible here <https://tinyurl.com/2beo9y9j>

Modularity report for Dimensions citation networks by journal sources ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

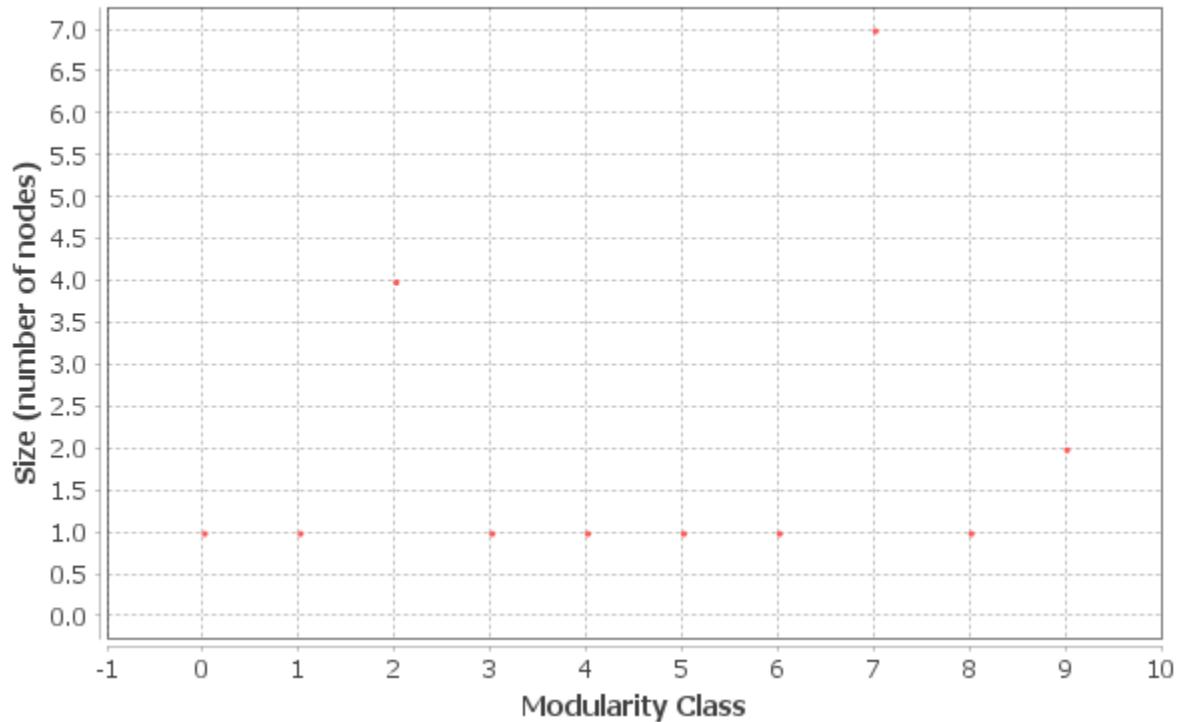
Results:

Modularity: 0.366

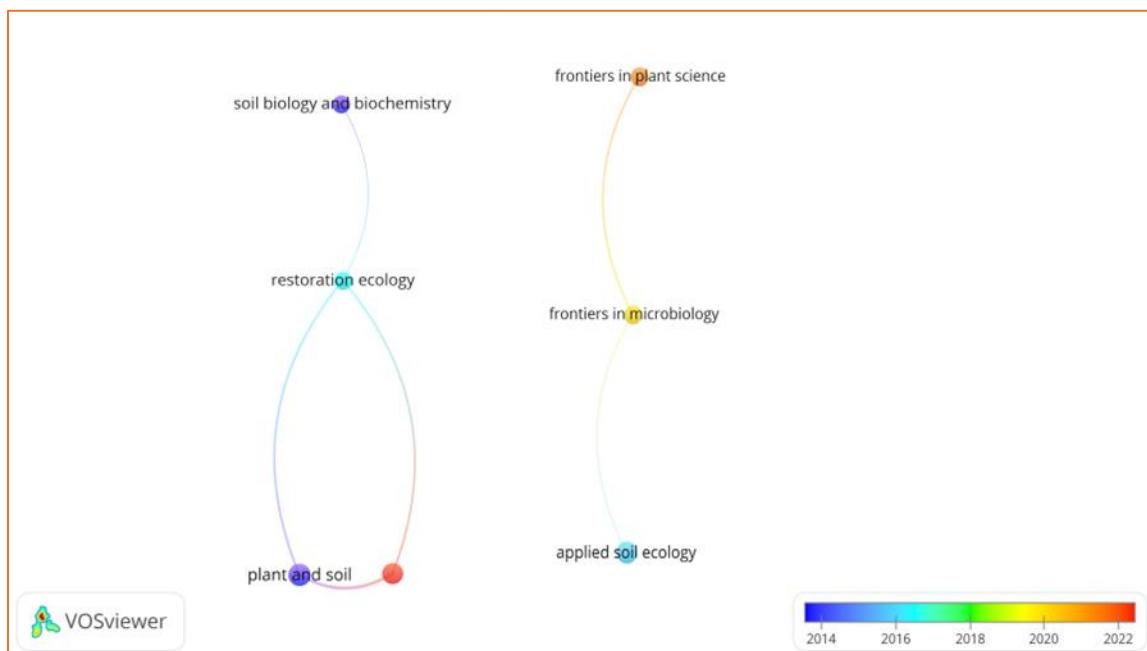
Modularity with resolution: 0.366

Number of Communities: 10

Size Distribution



Supplementary Figure S31A: Modularity report for Dimensions citation networks by journal sources ($n \geq 3$)



Supplementary Figure S32: Dimensions dataset citation networks by journal sources ($n \geq 5$).
Items: 7 Links: 6 | Total Link Strength: 11 Clusters: 3. The digital version is accessible here
<https://tinyurl.com/23llnp7j>

Modularity report for Dimensions citation networks by journal sources ($n \geq 5$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

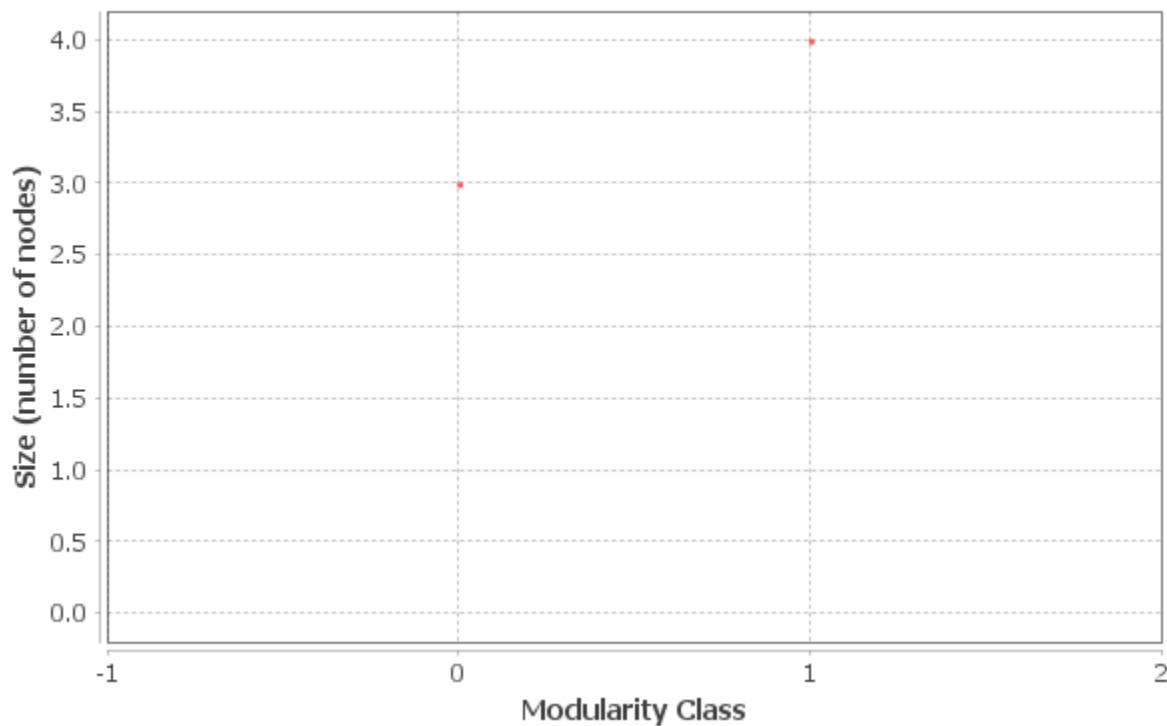
Results:

Modularity: 0.397

Modularity with resolution: 0.397

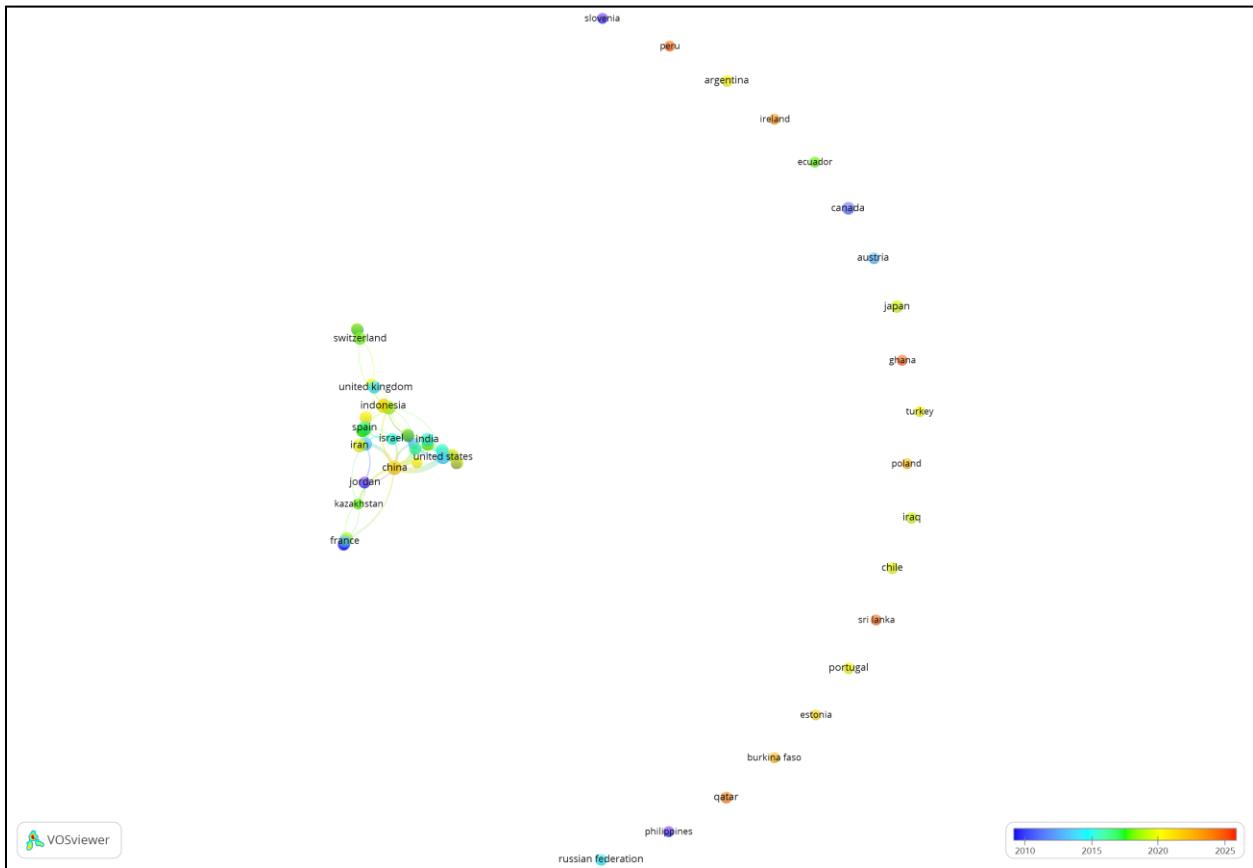
Number of Communities: 2

Size Distribution



Supplementary Figure S32A: Modularity report for Dimensions citation networks by journal sources ($n \geq 5$)

Scopus and Dimensions citation networks by countries



Supplementary Figure S33: Scopus citation networks by countries ($n \geq 1$). Items: 65 | Links: 105 | Total link strength: 180 | Clusters: 30. The digital version is accessible here <https://tinyurl.com/2y5ygyl2>.

Modularity report for Scopus citation networks by countries ($n \geq 1$)

Modularity report

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

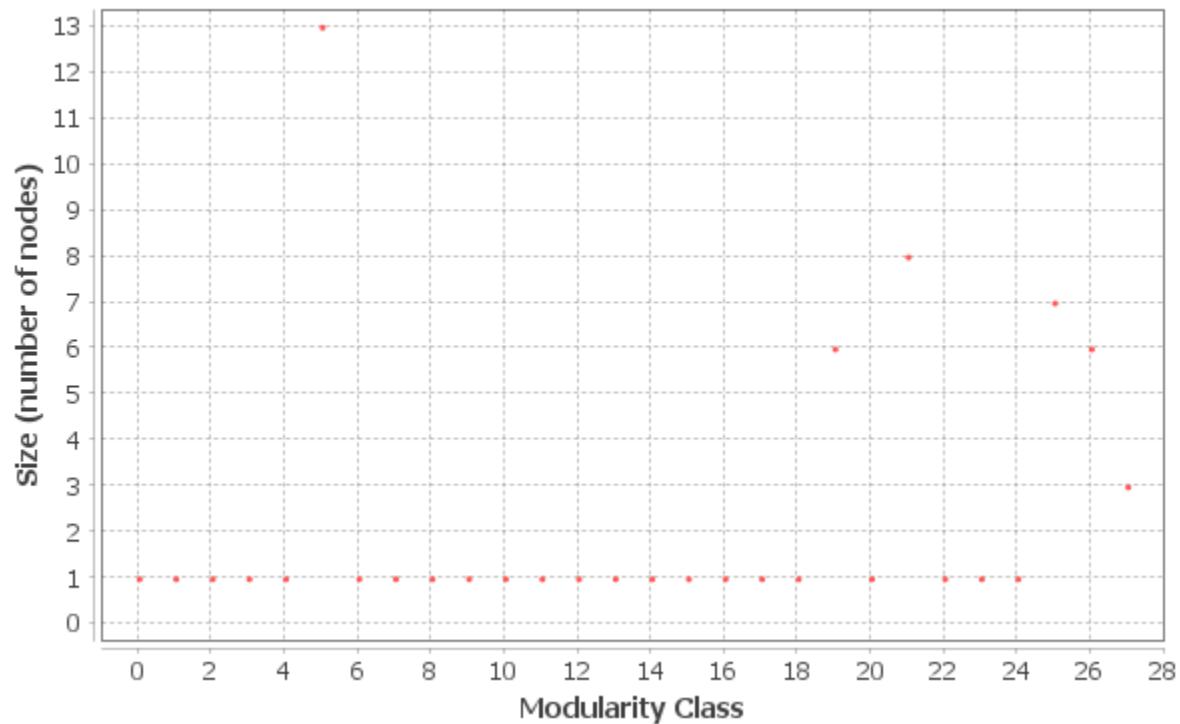
Results:

Modularity: 0.447

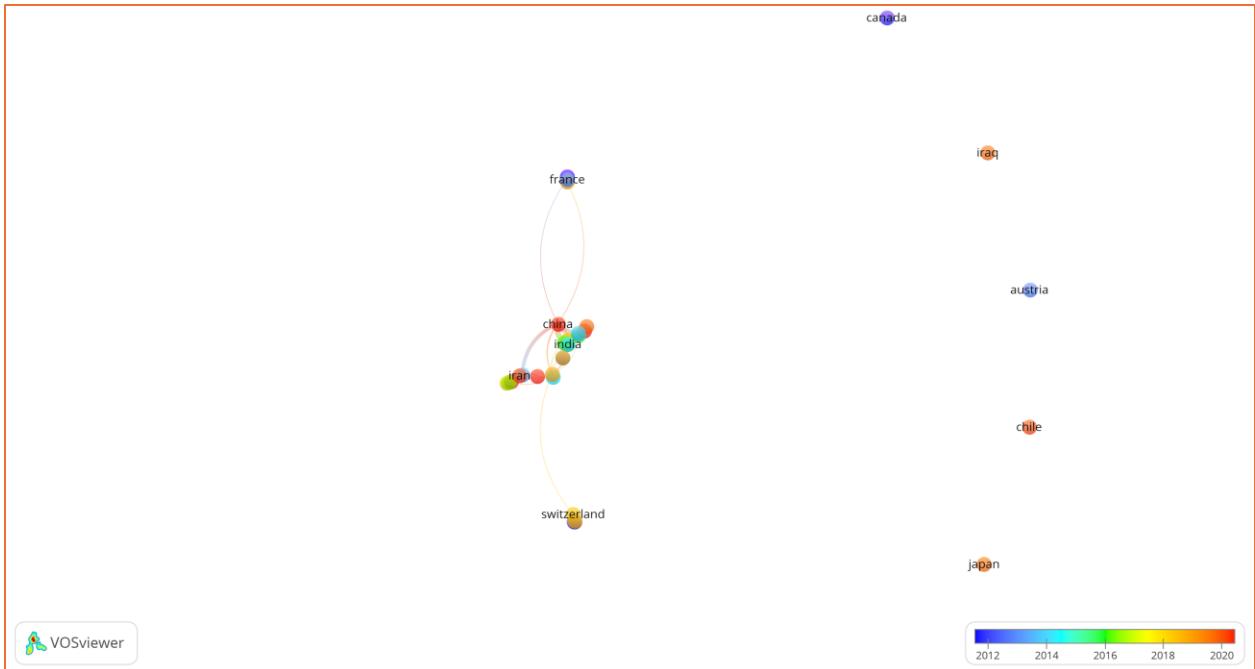
Modularity with resolution: 0.447

Number of Communities: 28

Size Distribution



Supplementary Figure S33A: Modularity report for Scopus citation networks by countries
($n \geq 1$)



Supplementary Figure S34: Scopus citation networks by countries ($n \geq 3$). Items: 37 | Links: 60 | Total link strength: 117 | Clusters: 12. The digital version is accessible here <https://tinyurl.com/2559qsfv>

Modularity report for Scopus citation networks by countries ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

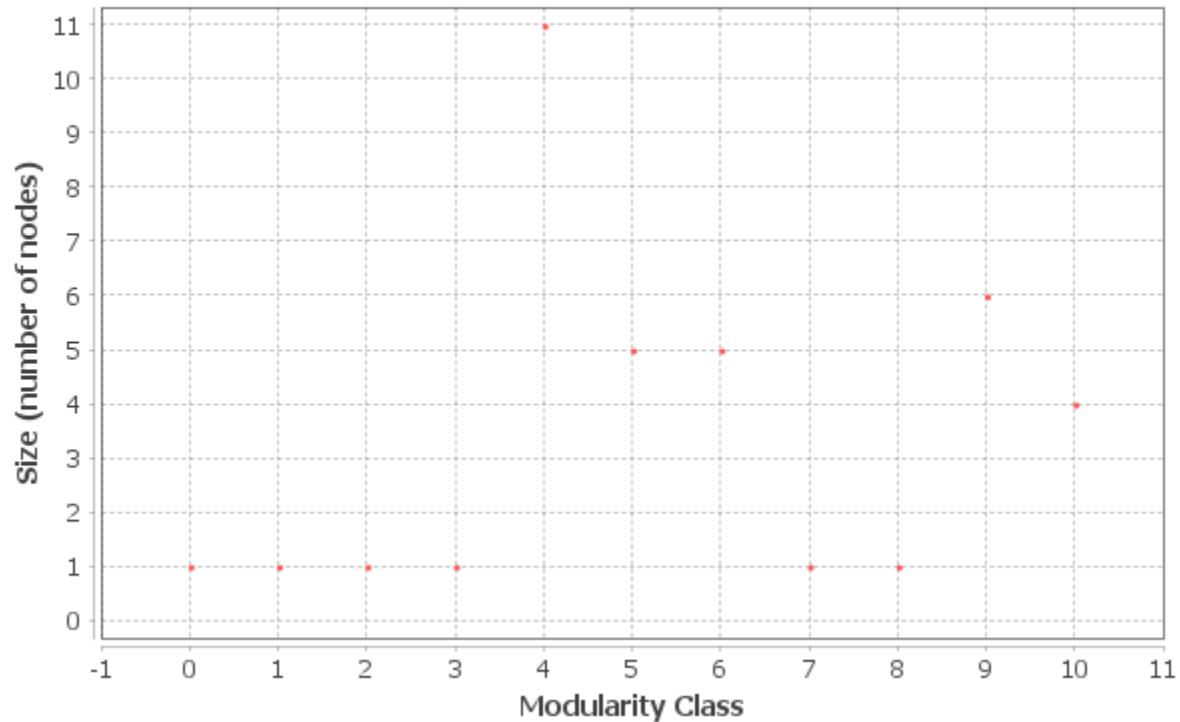
Results:

Modularity: 0.522

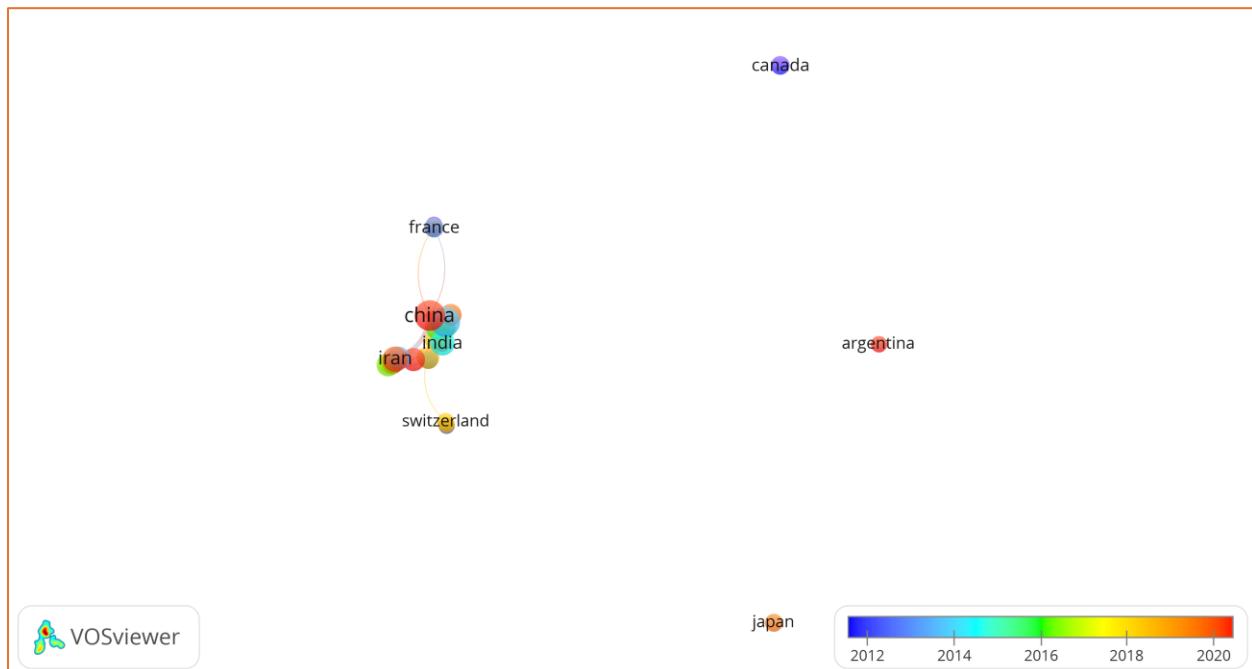
Modularity with resolution: 0.522

Number of Communities: 11

Size Distribution



Supplementary Figure S34A: Modularity report for Scopus citation networks by countries ($n \geq 3$)



Supplementary Figure S35: Scopus citation networks by countries ($n \geq 5$). Items: 26 | Links: 38 | Total link strength: 82 | Clusters: 10. The digital version is accessible here
<https://tinyurl.com/22aggcblk>

Modularity report for Scopus citation networks by countries ($n \geq 5$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

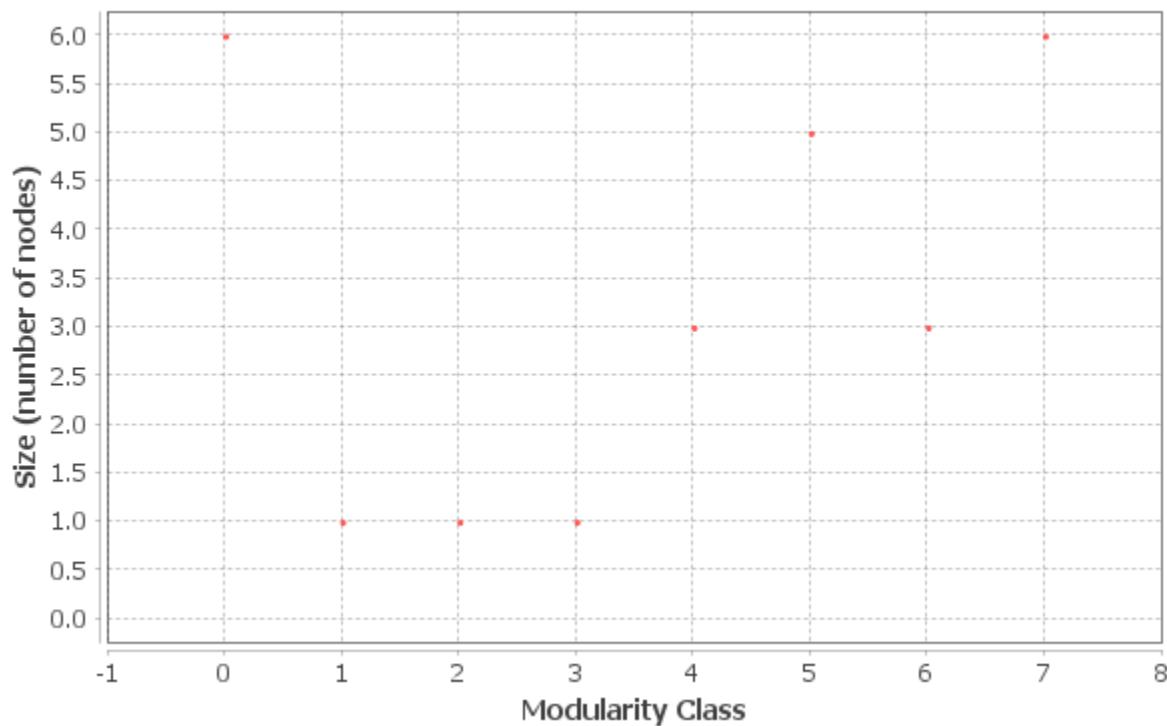
Results:

Modularity: 0.467

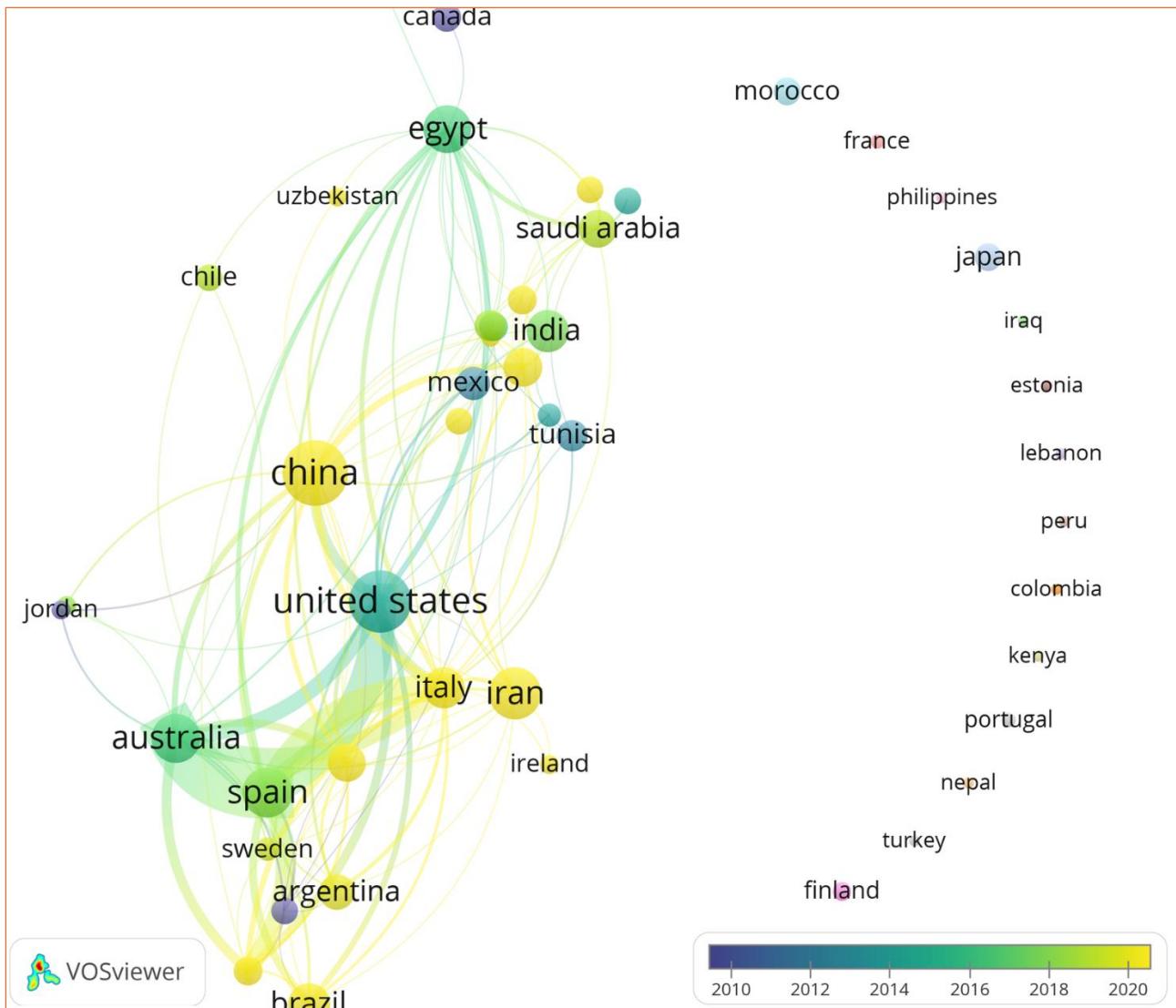
Modularity with resolution: 0.467

Number of Communities: 8

Size Distribution



Supplementary Figure S35A: Modularity report for Scopus citation networks by countries ($n \geq 5$)



Supplementary Figure S36: Dimensions dataset citation networks by countries ($n \geq 1$). Items: 53 Links: 144 | Total Link Strength: 488 Clusters: 21. The digital version is accessible here <https://tinyurl.com/2ypdf175>

Modularity report for Dimensions citation networks by countries ($n \geq 1$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

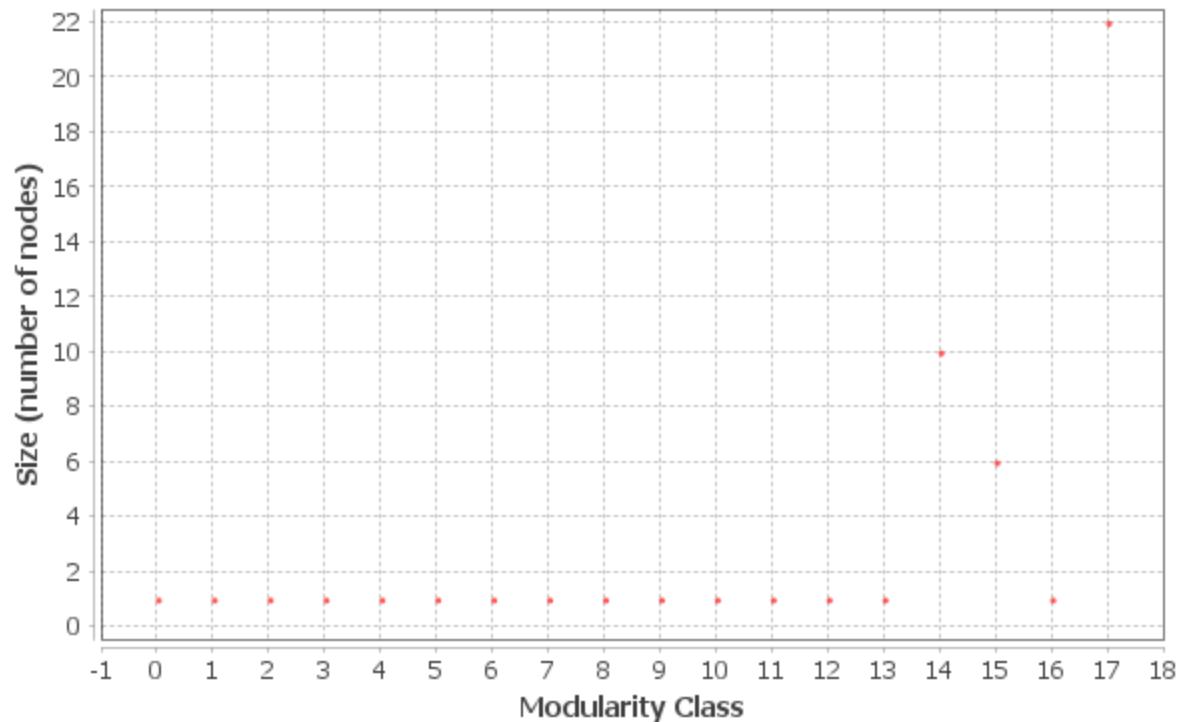
Results:

Modularity: 0.213

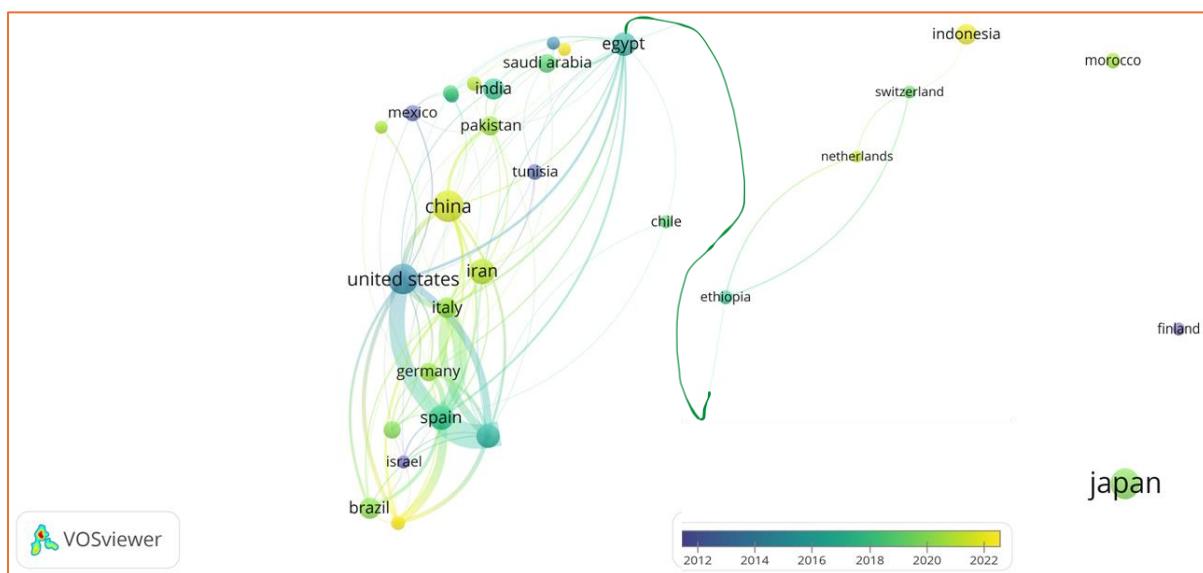
Modularity with resolution: 0.213

Number of Communities: 18

Size Distribution



Supplementary Figure S36A: Modularity report for Dimensions citation networks by countries ($n \geq 1$)



Supplementary Figure S37: Dimensions dataset citation networks by countries ($n \geq 3$). Items: 32 Links: 110 | Total Link Strength: 446 Clusters: 8. The digital version is accessible here <https://tinyurl.com/2c7zddyn>

Modularity report for Dimensions citation networks by countries (n ≥3)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

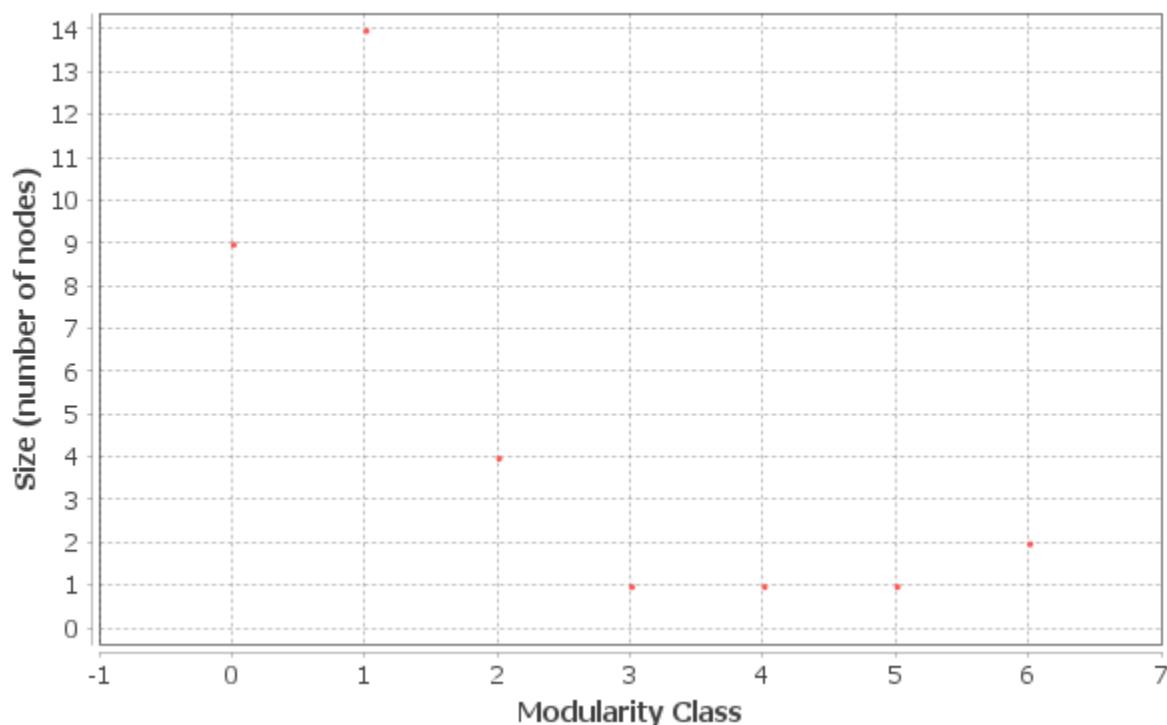
Results:

Modularity: 0.176

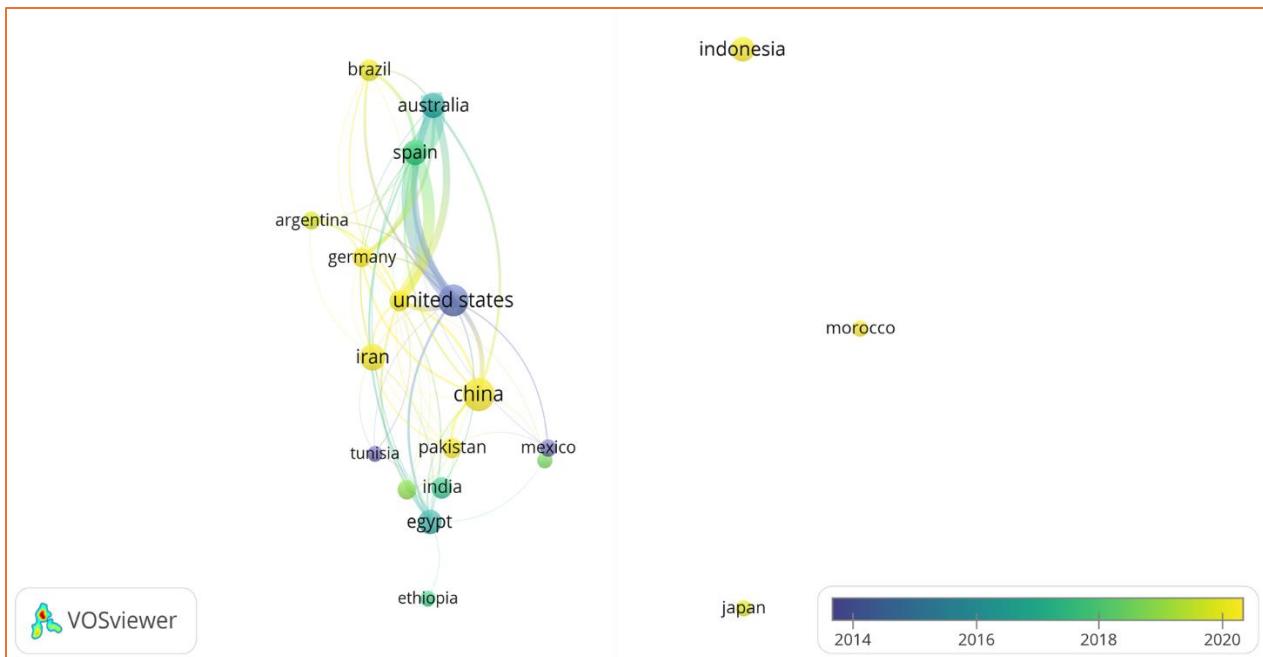
Modularity with resolution: 0.176

Number of Communities: 7

Size Distribution



Supplementary Figure S37A: Modularity report for Dimensions citation networks by countries (n ≥3)



Supplementary Figure S38: Dimensions dataset citation networks by countries ($n \geq 5$). Items: 20 Links: 68 | Total Link Strength: 346 Clusters: 7. The digital version is accessible here <https://tinyurl.com/y468wzw2>

Modularity report for Dimensions citation networks by countries ($n \geq 5$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

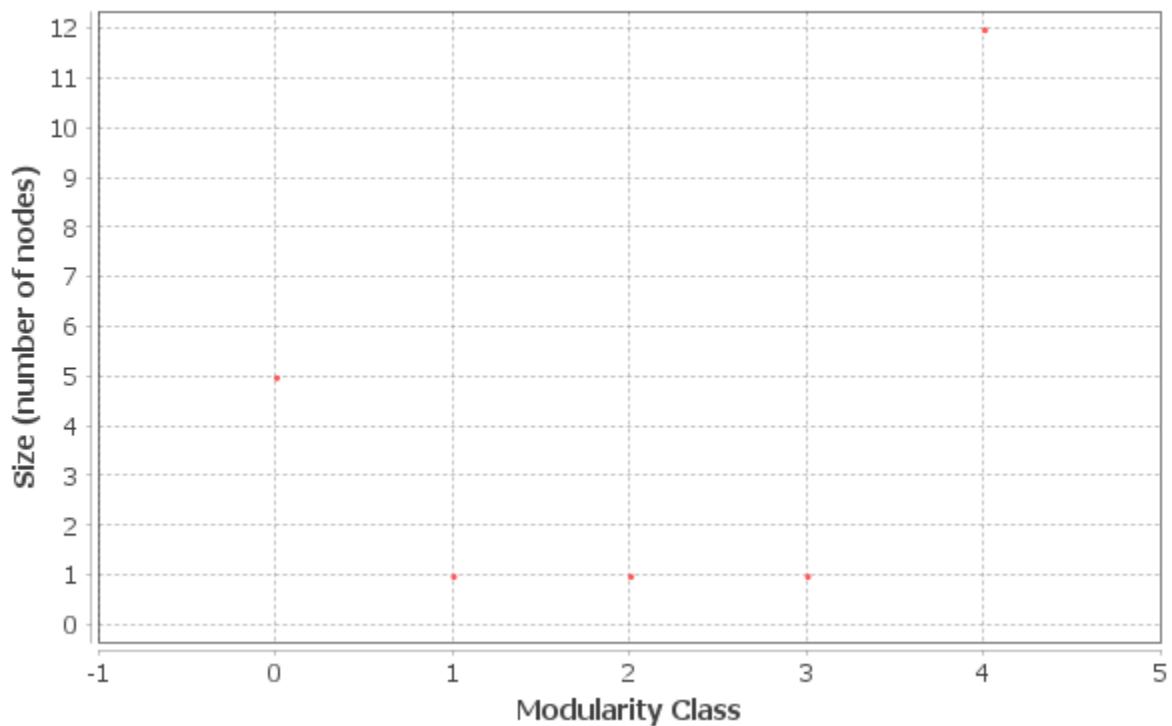
Results:

Modularity: 0.113

Modularity with resolution: 0.113

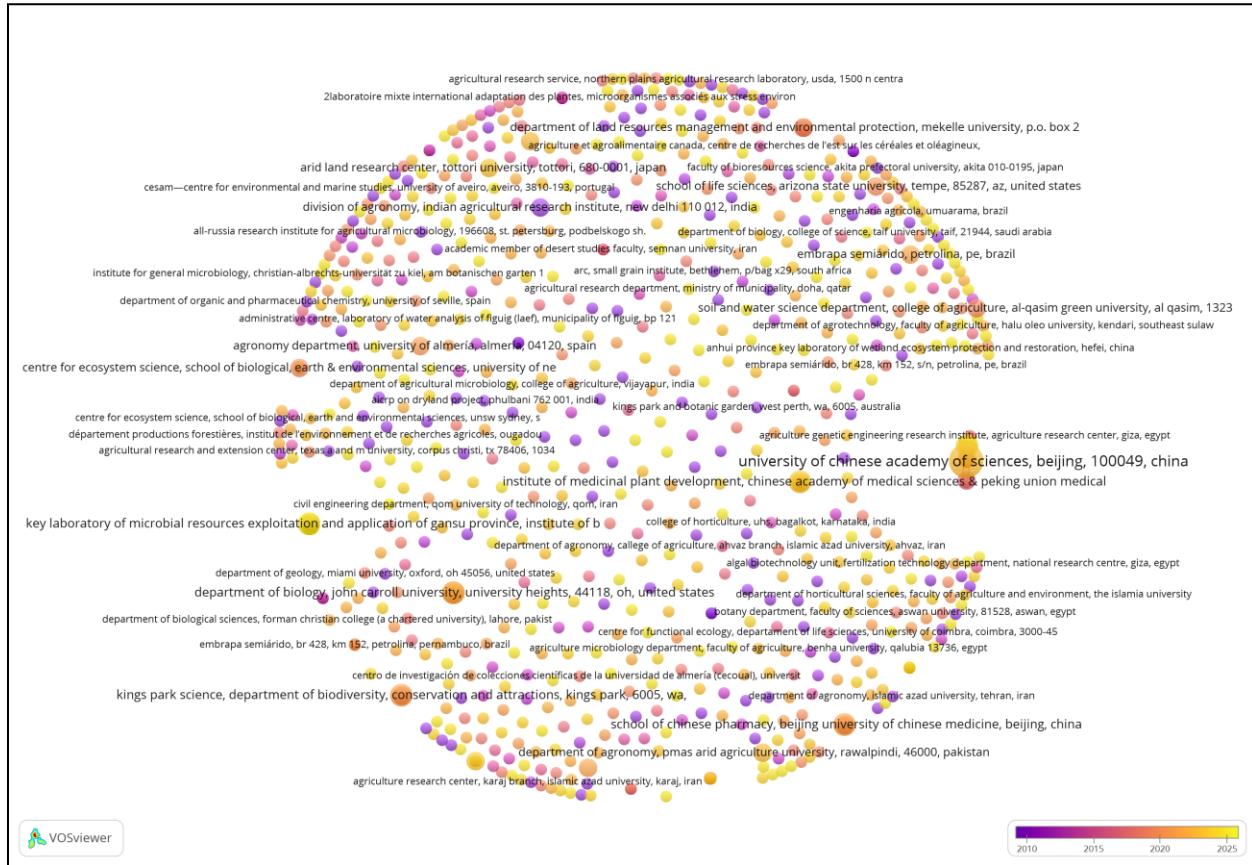
Number of Communities: 5

Size Distribution



Supplementary Figure S38A: Modularity report for Dimensions citation networks by countries ($n \geq 5$)

Scopus and Dimensions citation networks by organizations



Supplementary Figure S39: Scopus citation networks by organizations ($n \geq 1$). Items: 933 | Links: 818 | Total link strength: 866 | Clusters: 707. The digital version is accessible here <https://tinyurl.com/29dr22rv>.

Modularity report for Scopus citation network by organizations (n≥1)

Parameters:

Randomize: On

Use edge weights; On

Resolution: 1.0

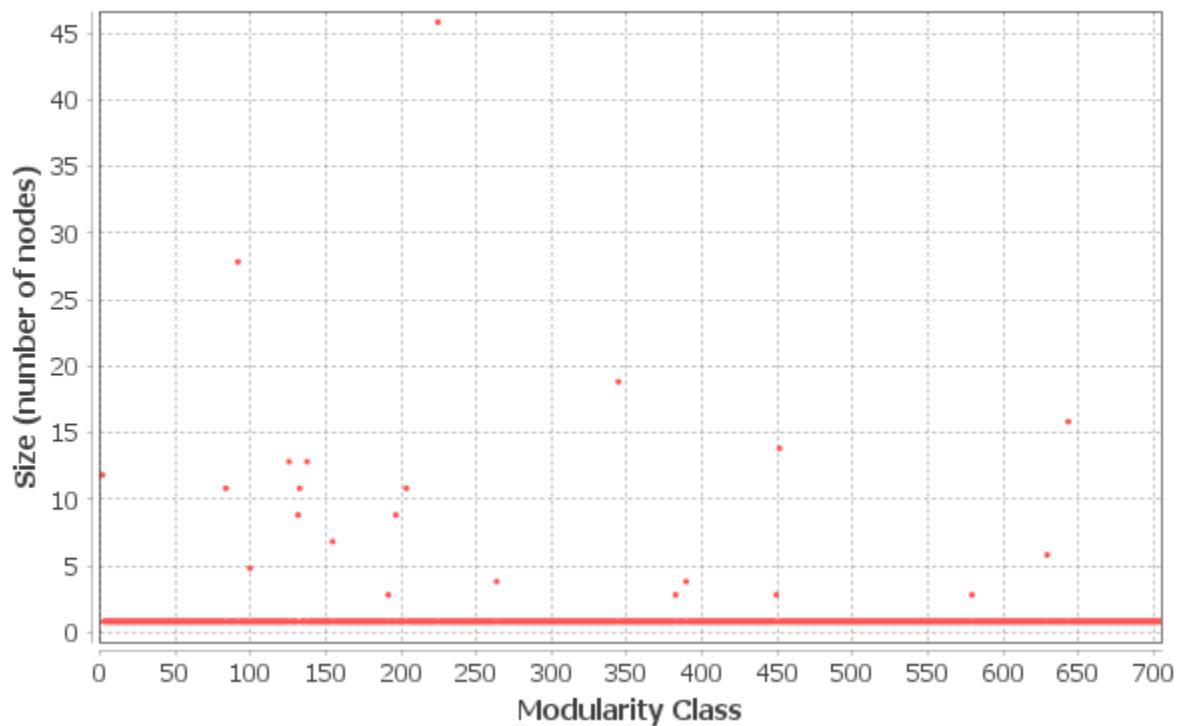
Results:

Modularity: 0.818

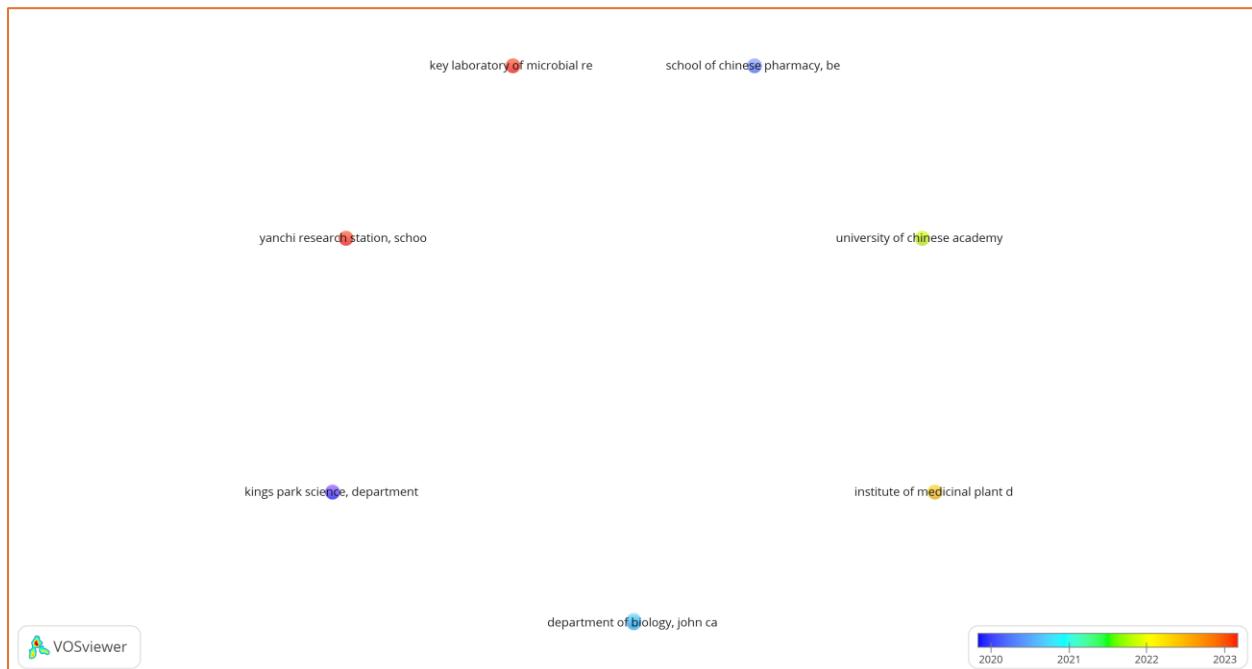
Modularity with resolution: 0.818

Modularity with resolution: 0.
Number of Communities: 705

Size Distribution



Supplementary Figure S39A: Modularity report for the Scopus citation networks by organizations ($n \geq 1$)



Supplementary Figure S40: Scopus citation networks by organizations ($n \geq 3$). Items: 8 | Links: 1 | Total link strength: 6 | Clusters: 7. The digital version is accessible here <https://tinyurl.com/2atyqelz>

Modularity report for the Scopus citation networks by organizations ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

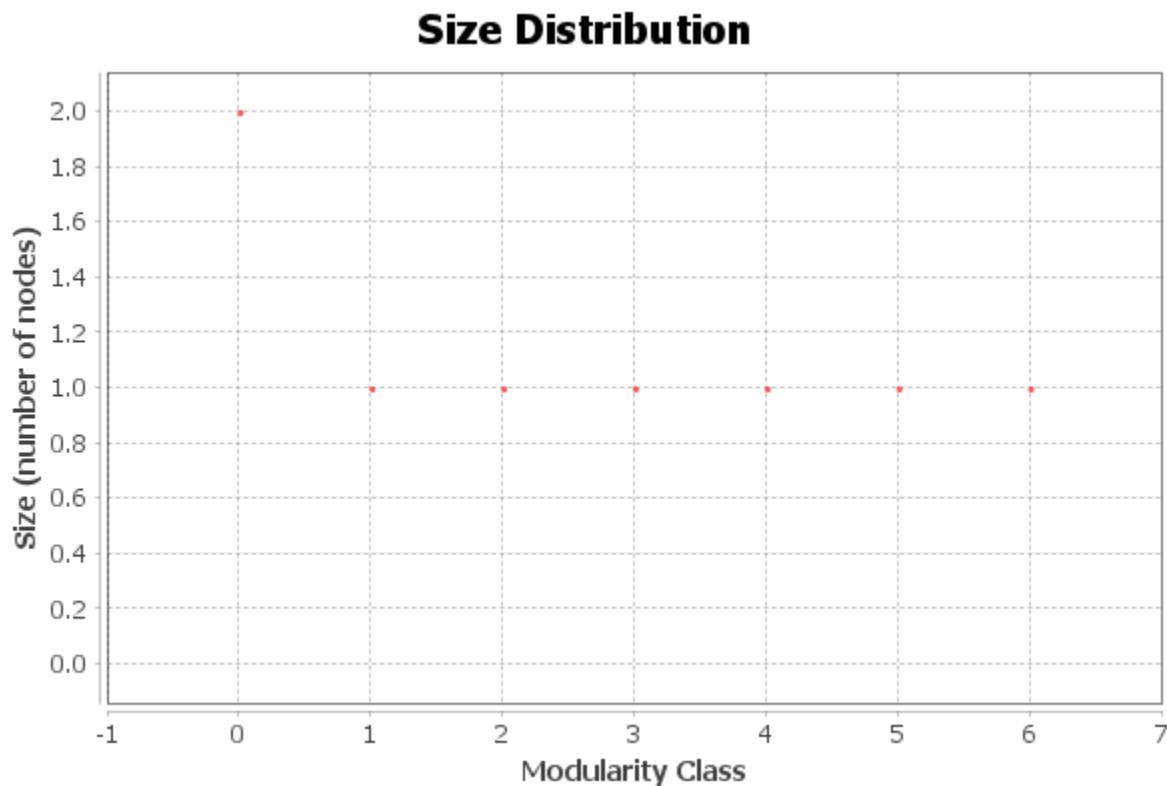
Resolution: 1.0

Results:

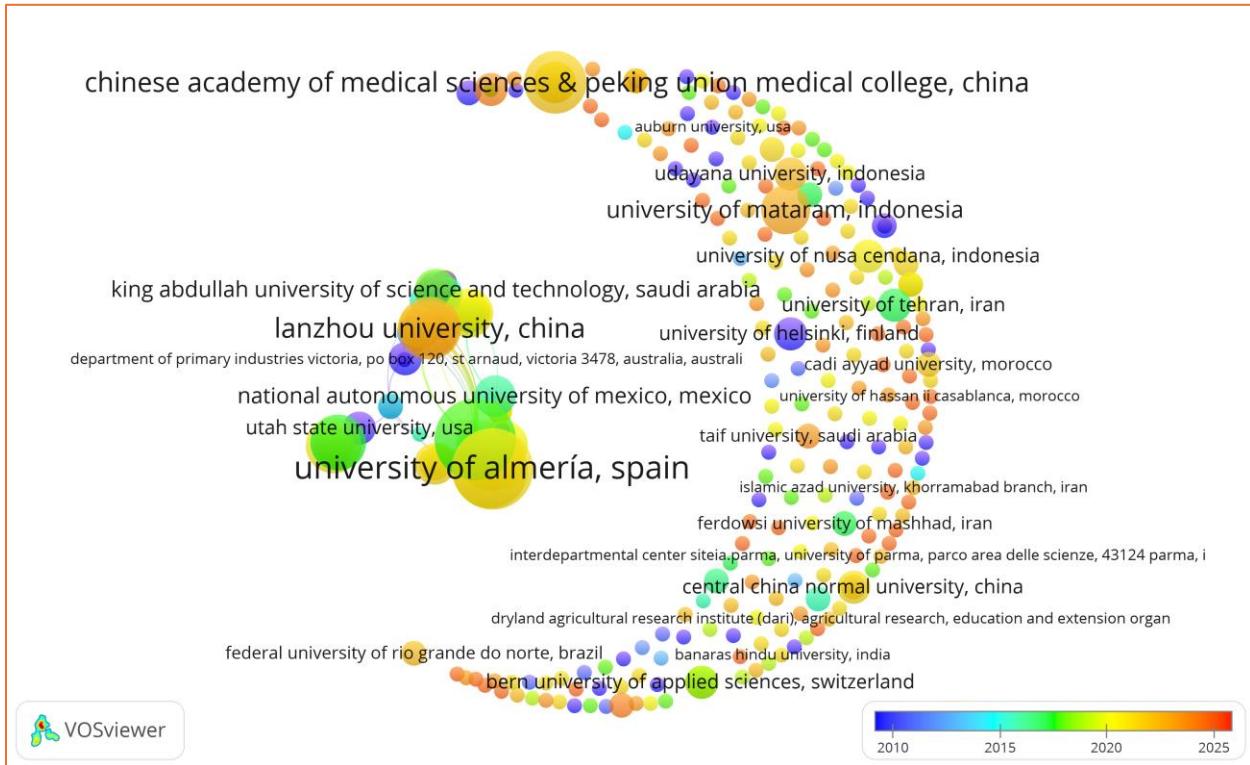
Modularity: 0.000

Modularity with resolution: 0.000

Number of Communities: 7



Supplementary Figure S40A: Modularity report for Scopus citation networks by organizations ($n \geq 3$)



Supplementary Figure S41: Dimensions dataset citation networks by organizations ($n \geq 1$).
 Items: 419 Links: 911 | Total Link Strength: 1624 Clusters: 218. The digital version is accessible here <https://tinyurl.com/2c4d2xow>

Modularity report for Dimensions citation networks by organizations ($n \geq 1$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

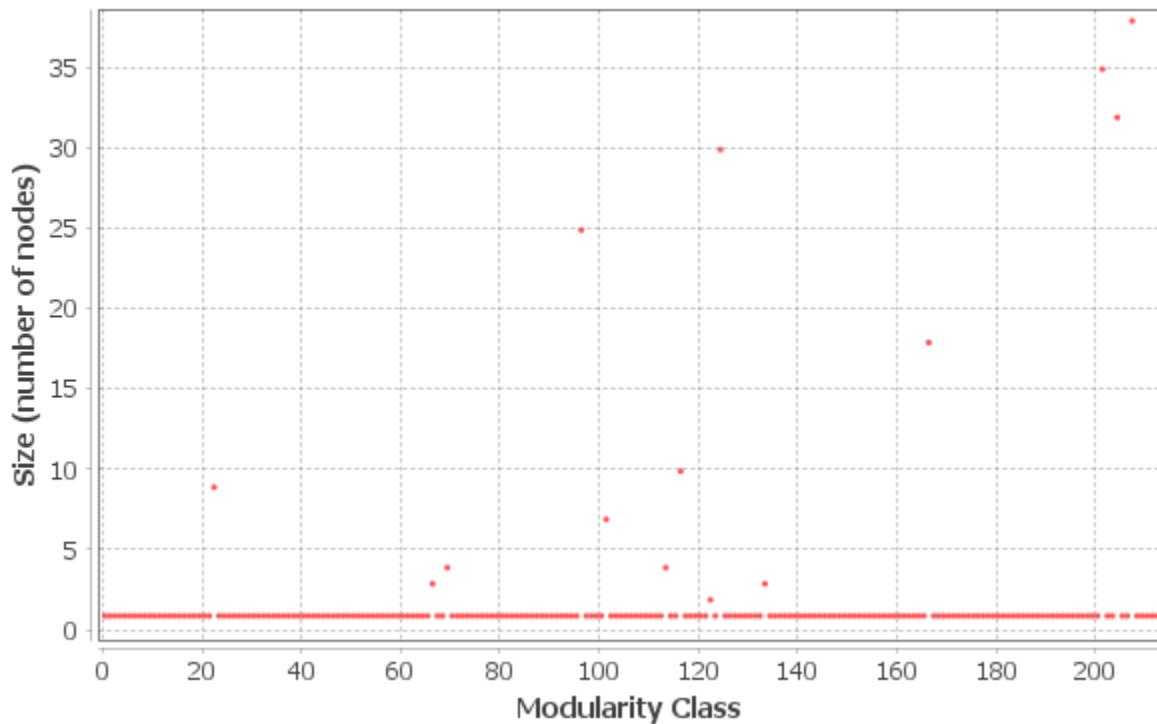
Results:

Modularity: 0.549

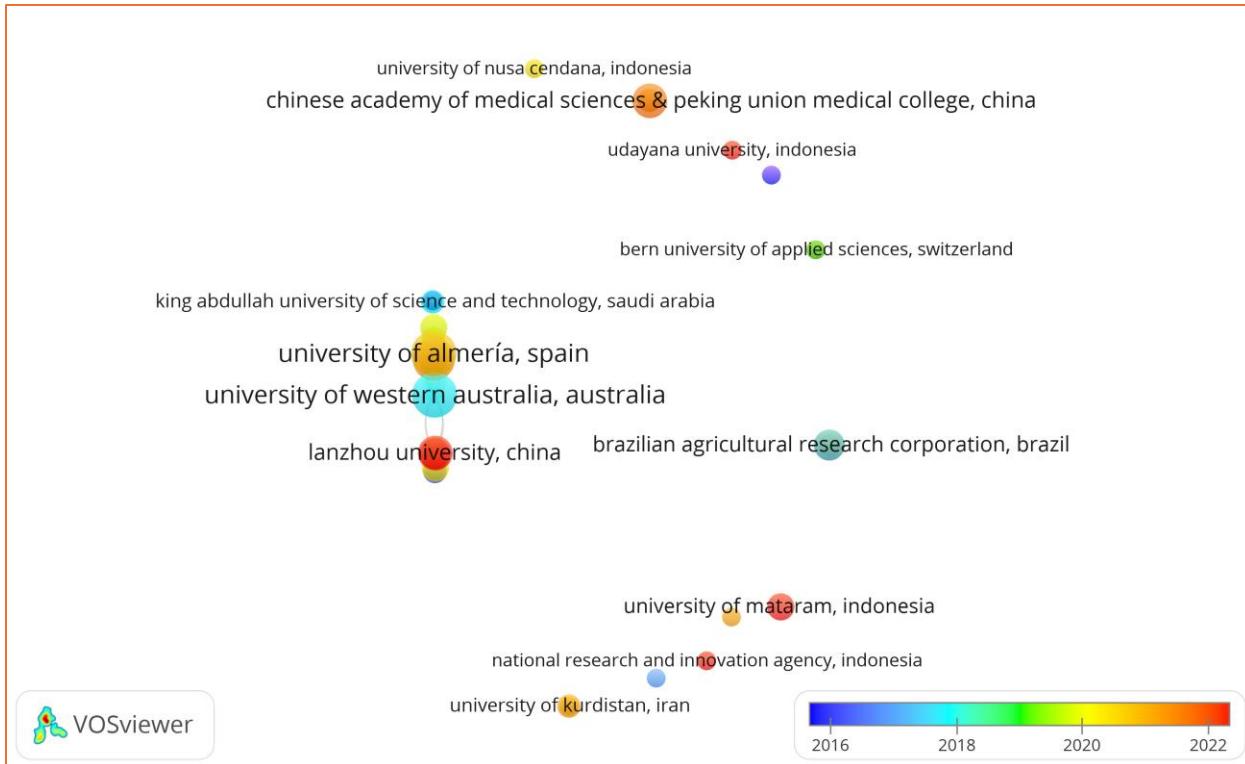
Modularity with resolution: 0.549

Number of Communities: 213

Size Distribution



Supplementary Figure S41A: Modularity report for Dimensions citation networks by organizations ($n \geq 1$)



Supplementary Figure S42: Dimensions dataset citation networks by organizations ($n \geq 3$).
 Items: 49 Links: 92 | Total Link Strength: 447 Clusters: 16. The digital version is accessible here
<https://tinyurl.com/23djpw3o>

Modularity report for Dimensions citation networks by organizations ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

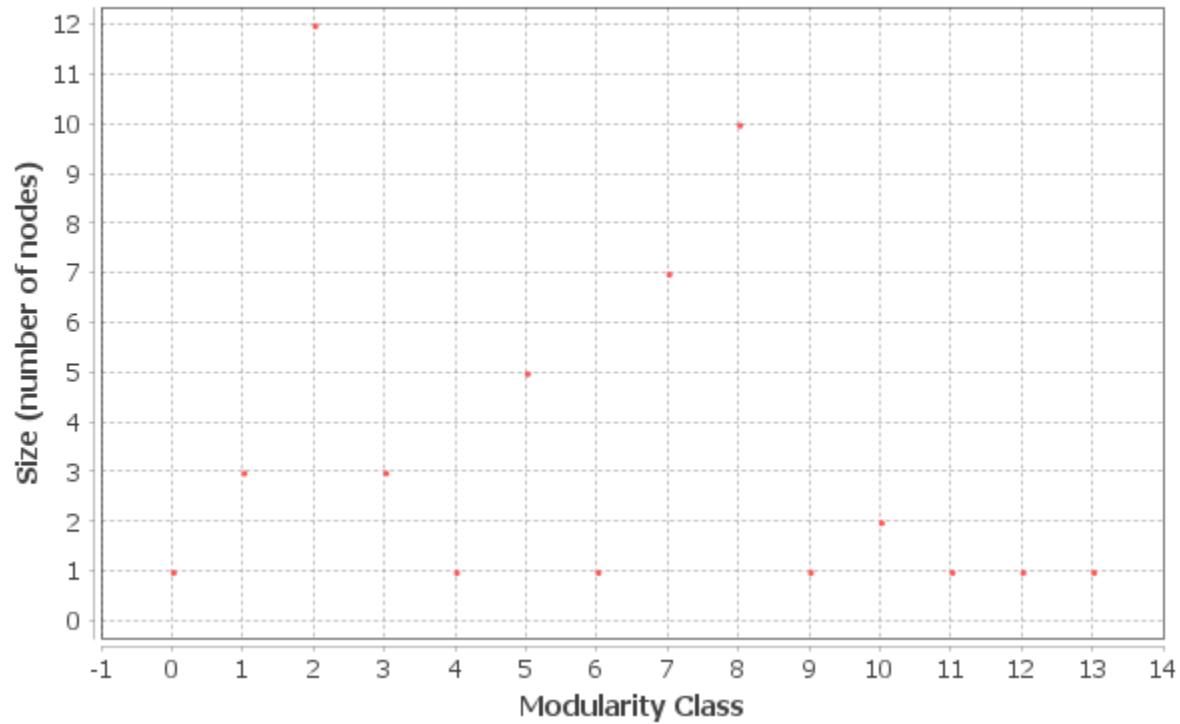
Results:

Modularity: 0.413

Modularity with resolution: 0.413

Number of Communities: 14

Size Distribution



Supplementary Figure S42A: Modularity report for Dimensions citation networks by organizations ($n \geq 3$)



Supplementary Figure S43: Dimensions dataset citation networks by organizations ($n \geq 5$).
Items: 13 Links: 20 | Total Link Strength: 237 Clusters: 6. The digital version is accessible here
<https://tinyurl.com/28dj978n>

Modularity report for Dimensions citation networks by organizations ($n \geq 5$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

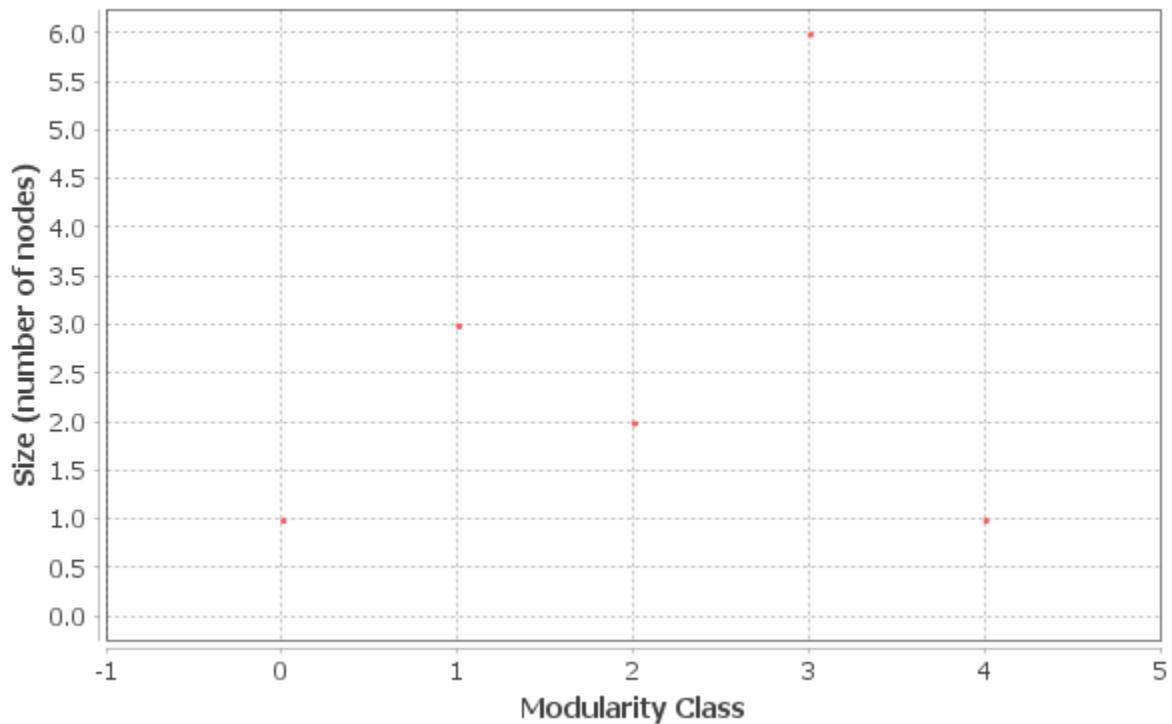
Results:

Modularity: 0.153

Modularity with resolution: 0.153

Number of Communities: 5

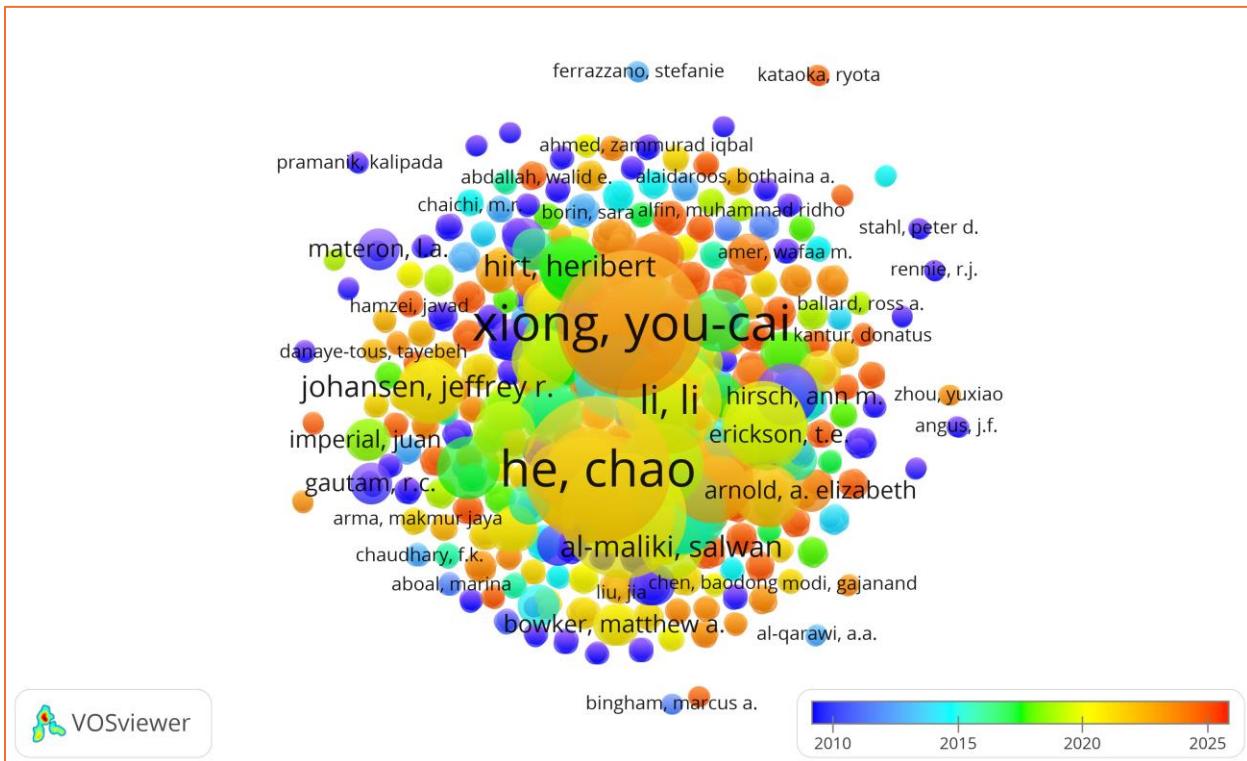
Size Distribution



Supplementary Figure S43A: Modularity report for Dimensions citation networks by organizations ($n \geq 5$)

Co-Authorship Networks

Scopus and Dimensions Co-Authorship Networks by Authors



Supplementary Figure S44: Scopus co-authorship network by authors ($n \geq 1$). Items: 1576 | Links: 4826 | Total link strength: 5032 | Clusters: 233. All keywords were shown regardless of whether they are connected to each other or not. The digital version is accessible here <https://tinyurl.com/267qbzkn>

Modularity report for Scopus co-authorship network by authors ($n \geq 1$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

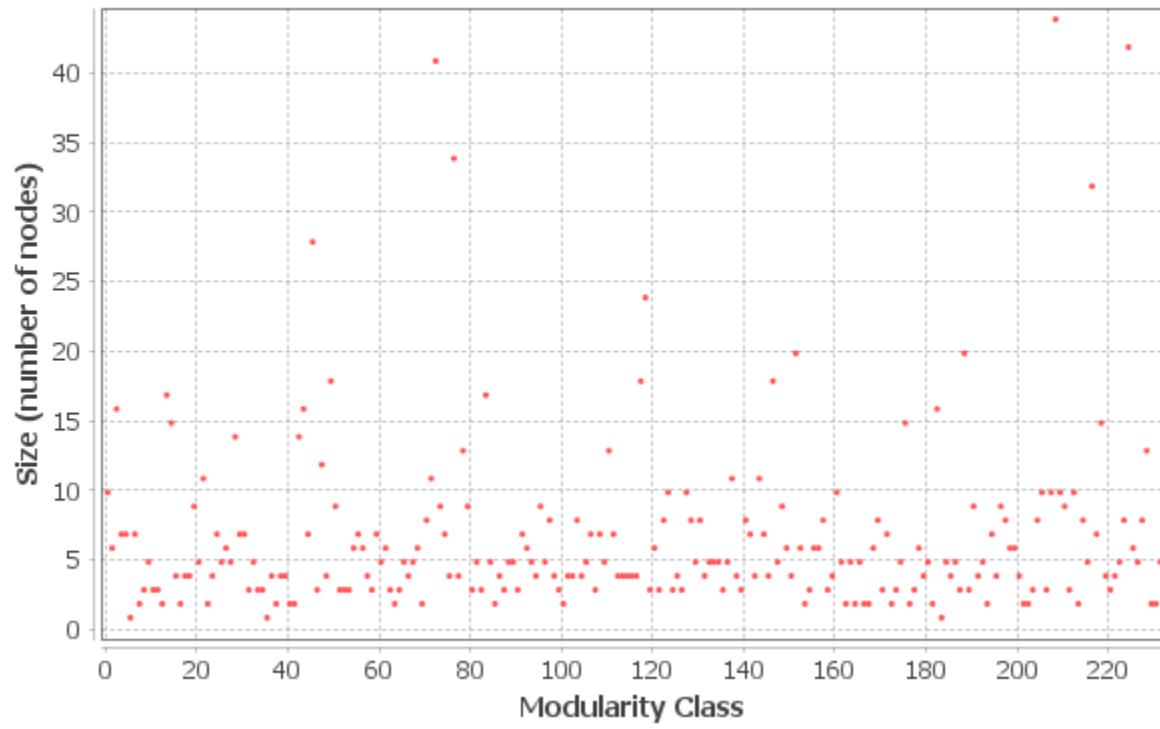
Results:

Modularity: 0.984

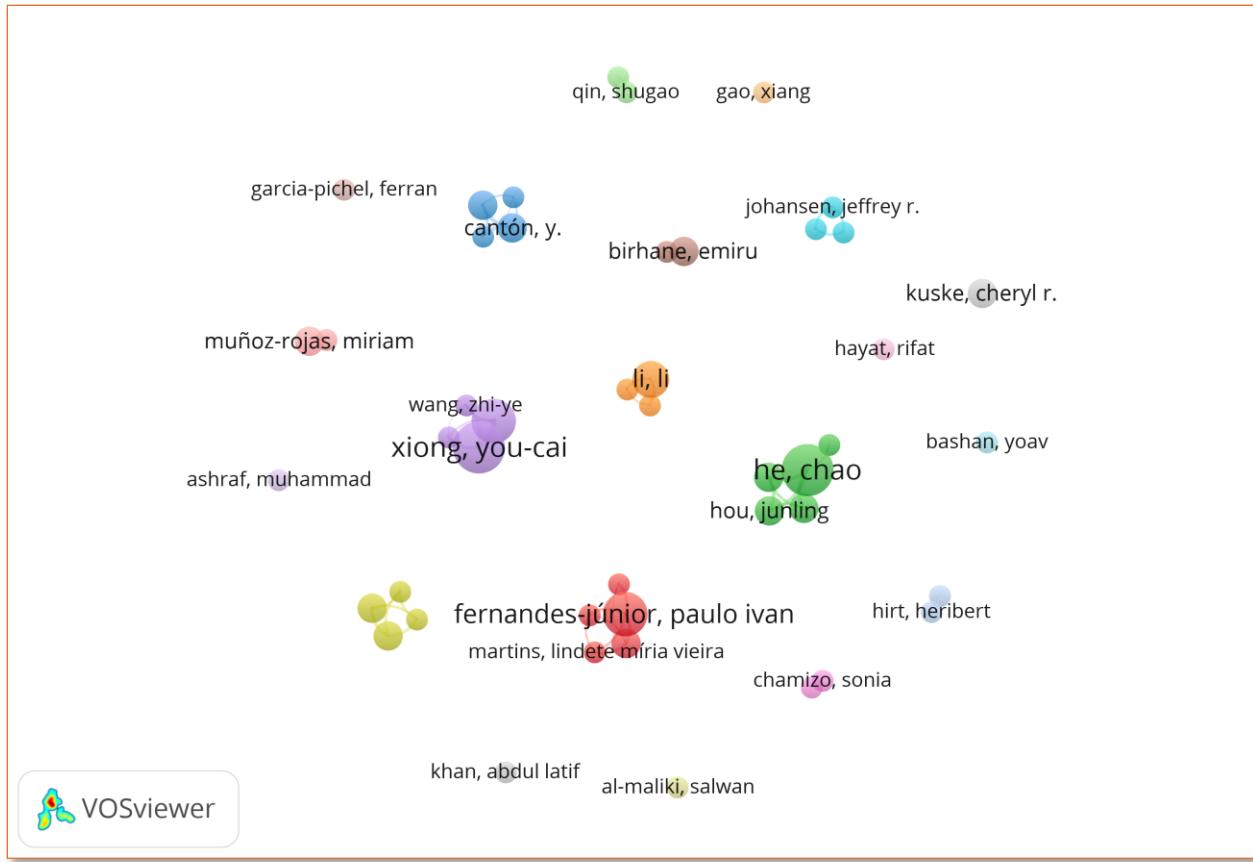
Modularity with resolution: 0.984

Number of Communities: 232

Size Distribution



Supplementary Figure S44A: Modularity report for Scopus co-authorship network by authors ($n \geq 1$)



Supplementary Figure S45: Scopus co-authorship network by authors ($n \geq 3$). Items: 46 | Links: 45 | Total link strength: 128 | Clusters: 20. All keywords were shown regardless of whether they are connected to each other or not. The digital version is accessible here <https://tinyurl.com/28nz4kht>

Modularity report Scopus co-authorship network by authors ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

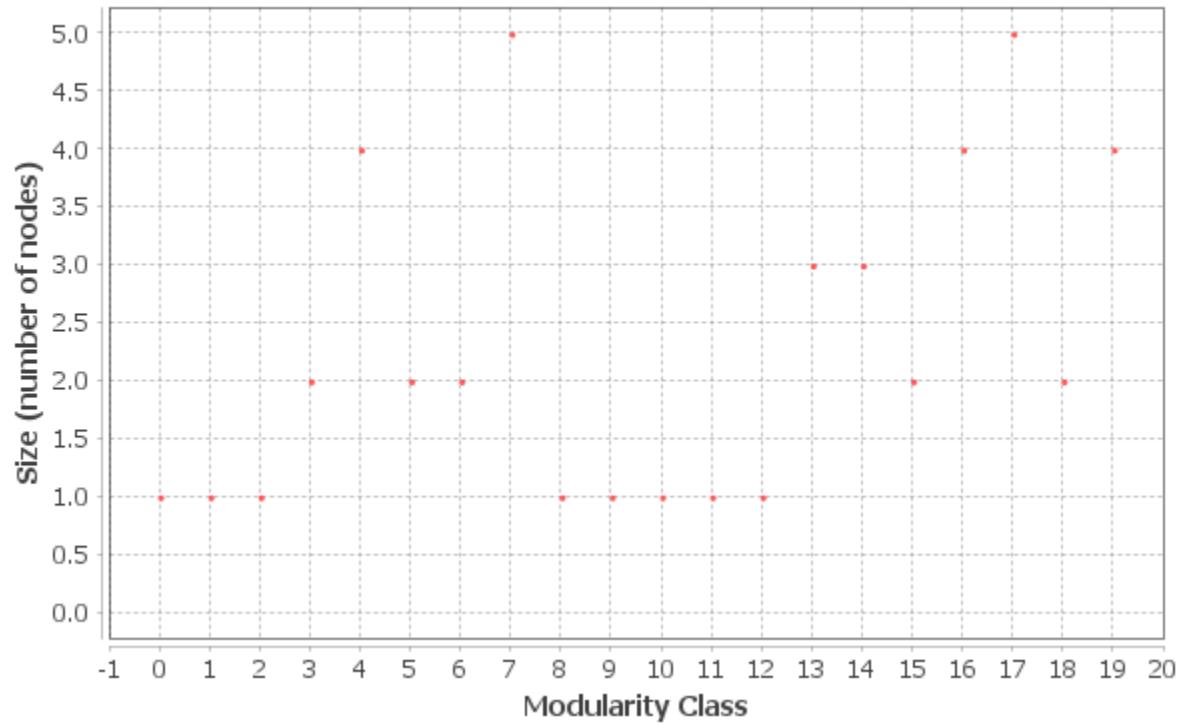
Results:

Modularity: 0.869

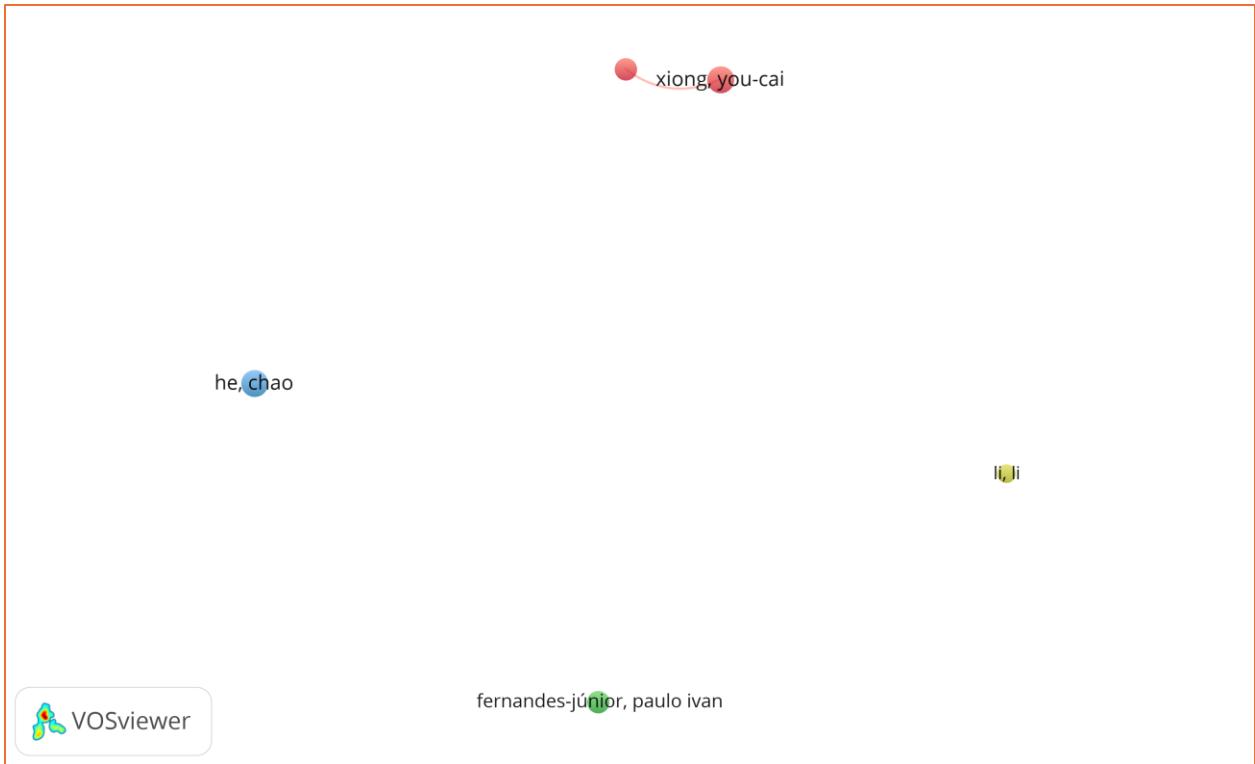
Modularity with resolution: 0.869

Number of Communities: 20

Size Distribution



Supplementary Figure S45A: Modularity report Scopus co-authorship network by authors ($n \geq 3$)



Supplementary Figure S46: Scopus co-authorship network by authors ($n \geq 5$) | Items: 5 | Links: 1 | Total link strength: 6 | Clusters: 4. All keywords were shown regardless of whether they are connected or not. The digital version is accessible here <https://tinyurl.com/25k6yjem>

Modularity report Scopus co-authorship network by authors ($n \geq 5$)

Randomize: On

Use edge weights: On

Resolution: 1.0

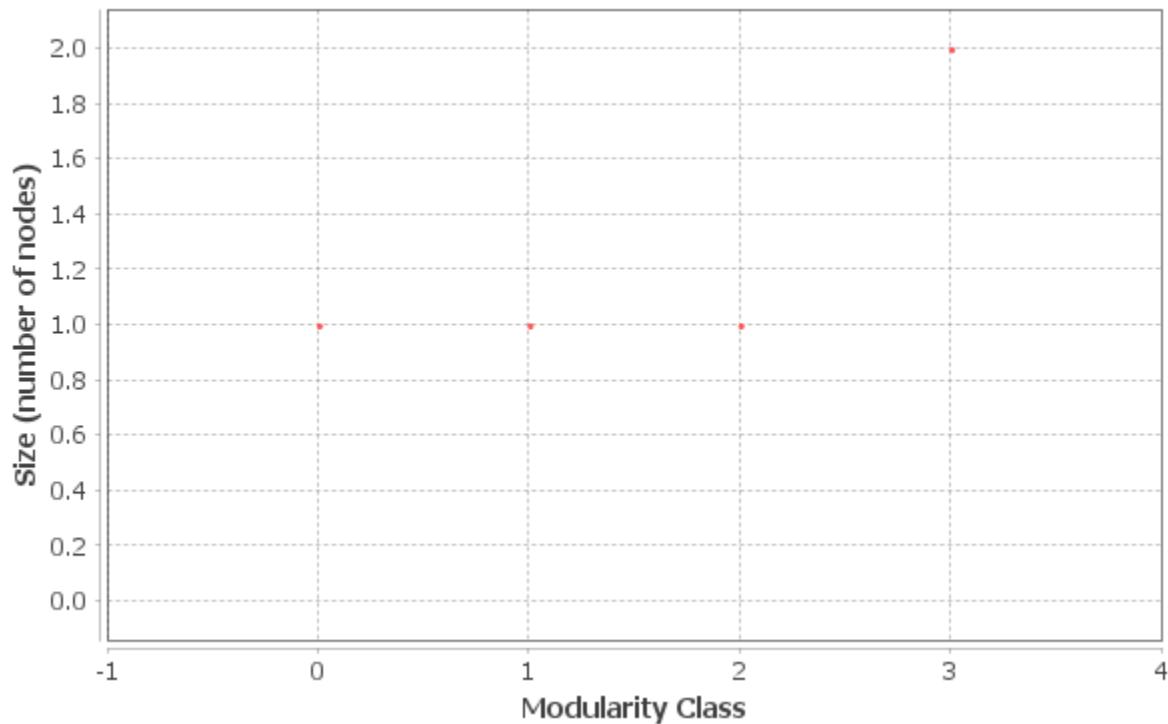
Results:

Modularity: 0.000

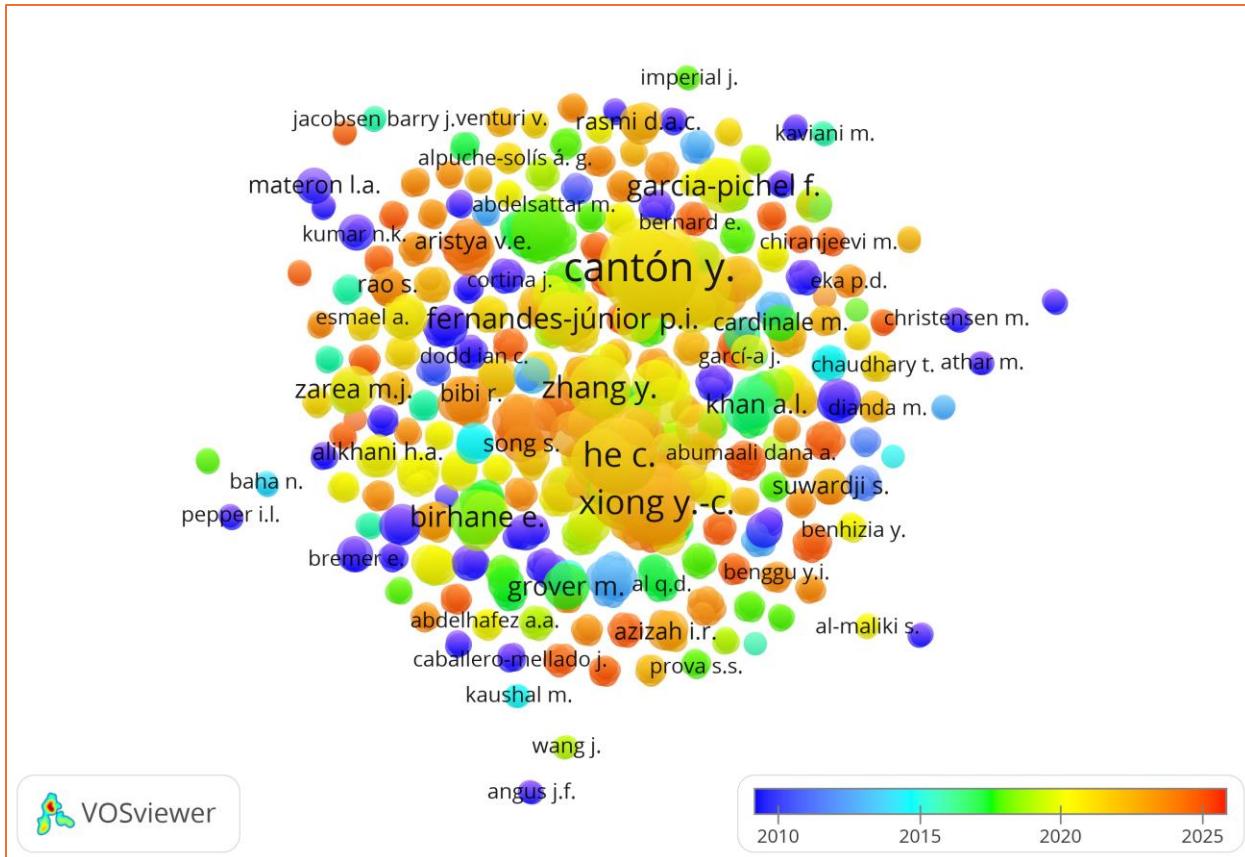
Modularity with resolution: 0.000

Number of Communities: 4

Size Distribution



Supplementary Figure S46A: Modularity report Scopus co-authorship network by authors ($n \geq 5$)



Supplementary Figure S47: Dimensions dataset Co-authorship networks by authors ($n \geq 1$).
 Items: 1241 | Links: 3644 | Total link strength: 3867 | Clusters: 185. The digital version is accessible here <https://tinyurl.com/25yufjvz>

Modularity report for Dimensions dataset Co-authorship networks by authors ($n \geq 1$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

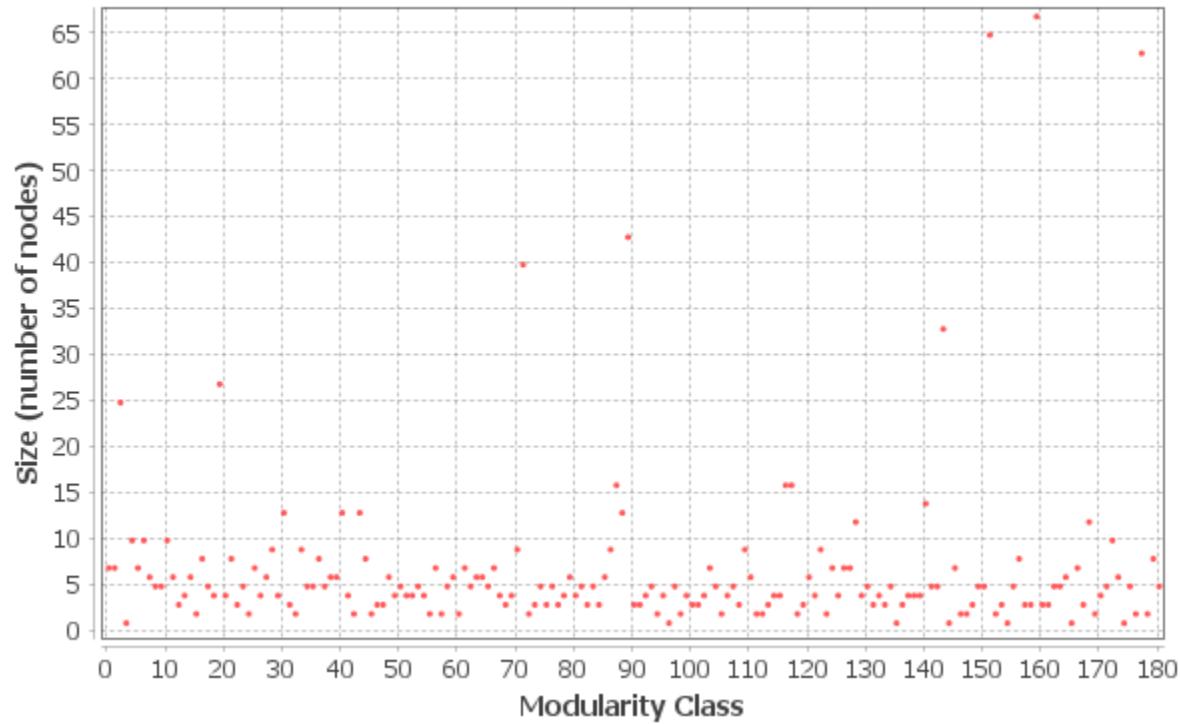
Results:

Modularity: 0.956

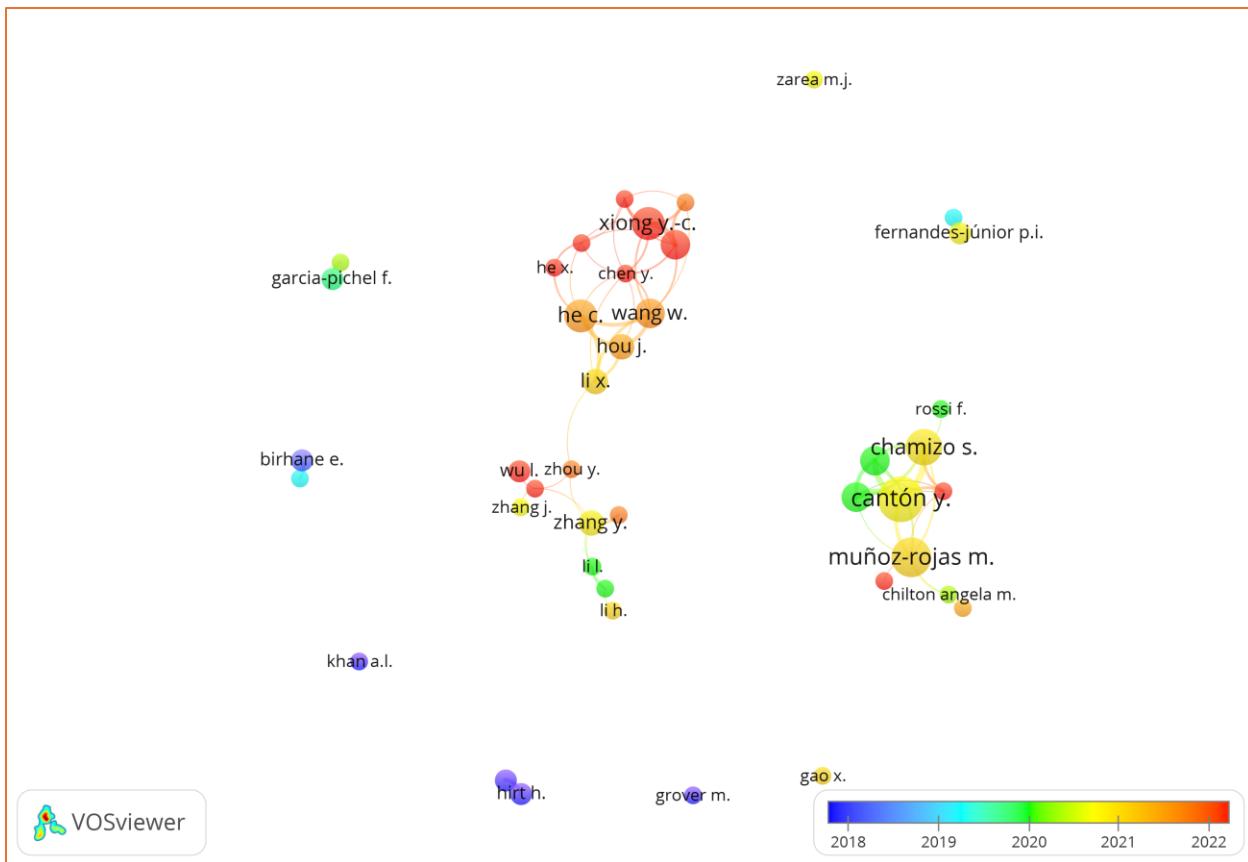
Modularity with resolution: 0.956

Number of Communities: 181

Size Distribution



Supplementary Figure S47A: Modularity report for Dimensions dataset Co-authorship networks by authors ($n \geq 1$)



Supplementary Figure S48: Dimensions dataset Co-authorship networks by authors ($n \geq 3$).
 Items: 42 | Links: 63 | Total link strength: 142 | Clusters: 13. The digital version is accessible here <https://tinyurl.com/2avpj6df>

Modularity report for Dimensions dataset Co-authorship networks by authors ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

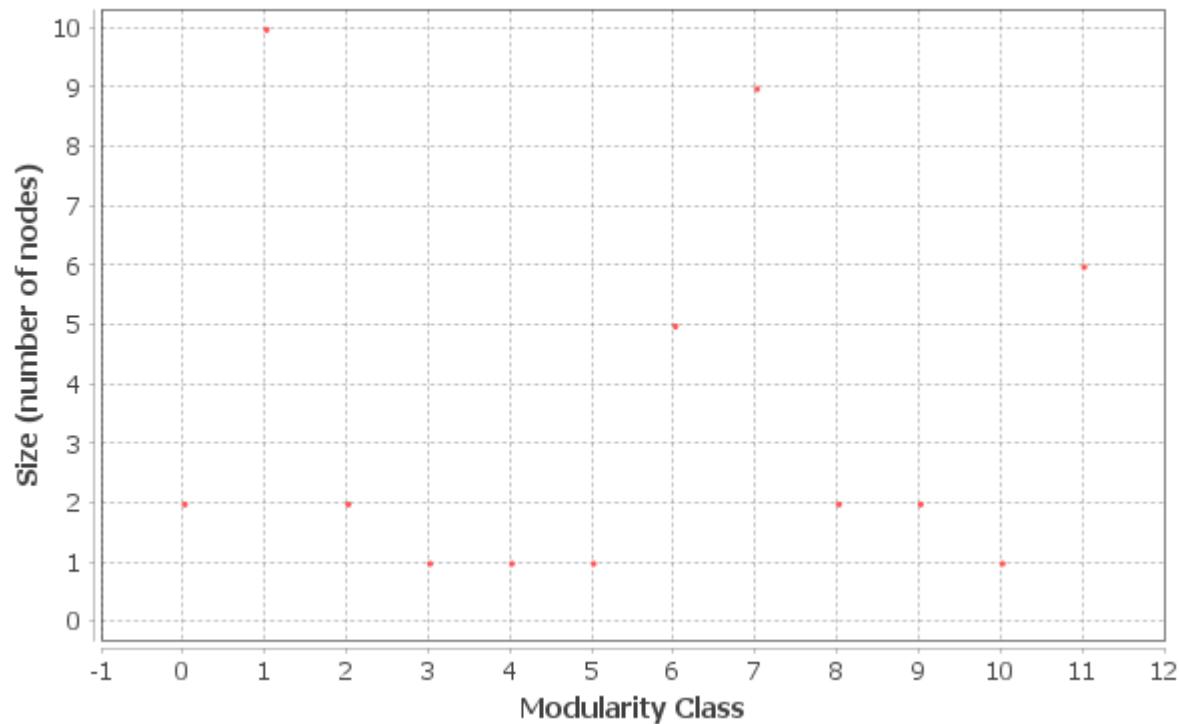
Results:

Modularity: 0.653

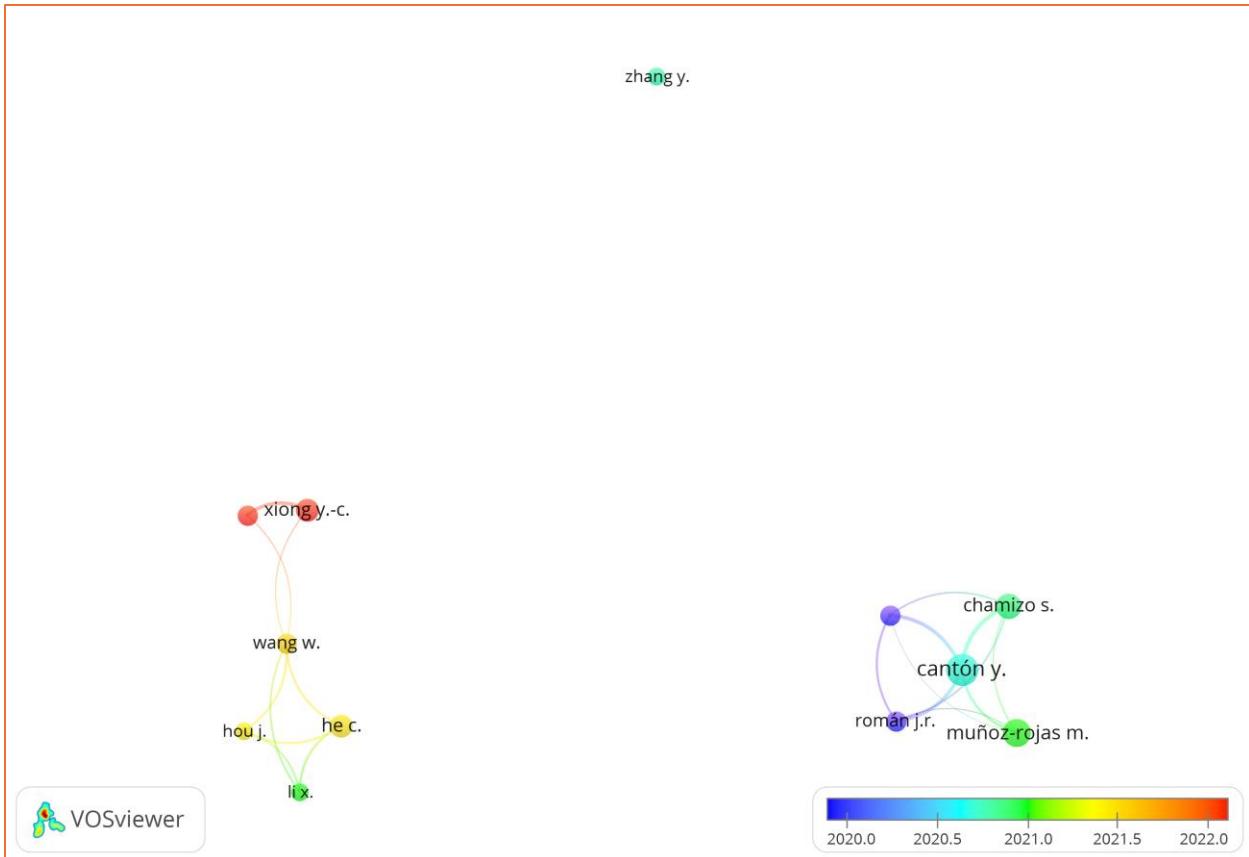
Modularity with resolution: 0.653

Number of Communities: 12

Size Distribution



Supplementary Figure S48A: Modularity report for Dimensions dataset Co-authorship networks by authors ($n \geq 3$)



Supplementary Figure S49: Dimensions dataset Co-authorship networks by authors ($n \geq 5$).
 Items: 12 | Links: 19 | Total link strength: 70 | Clusters: 4. The digital version is accessible here
<https://tinyurl.com/28tns9ac>

Modularity report for Dimensions dataset Co-authorship networks by authors ($n \geq 5$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

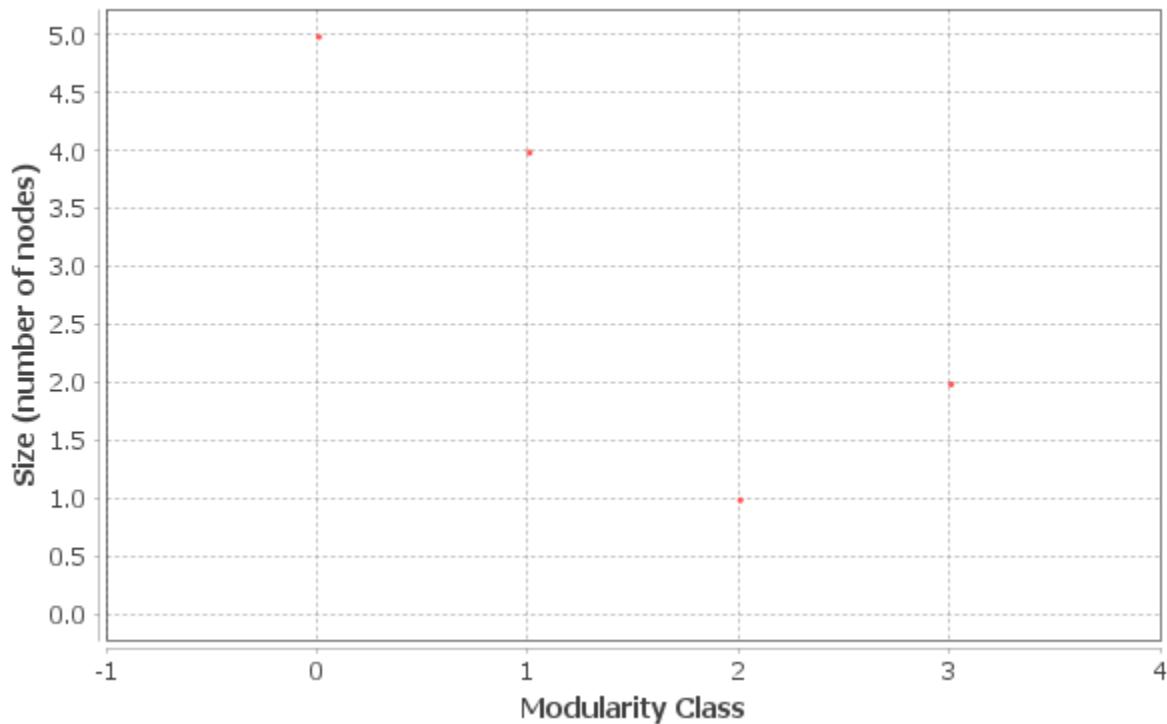
Results:

Modularity: 0.518

Modularity with resolution: 0.518

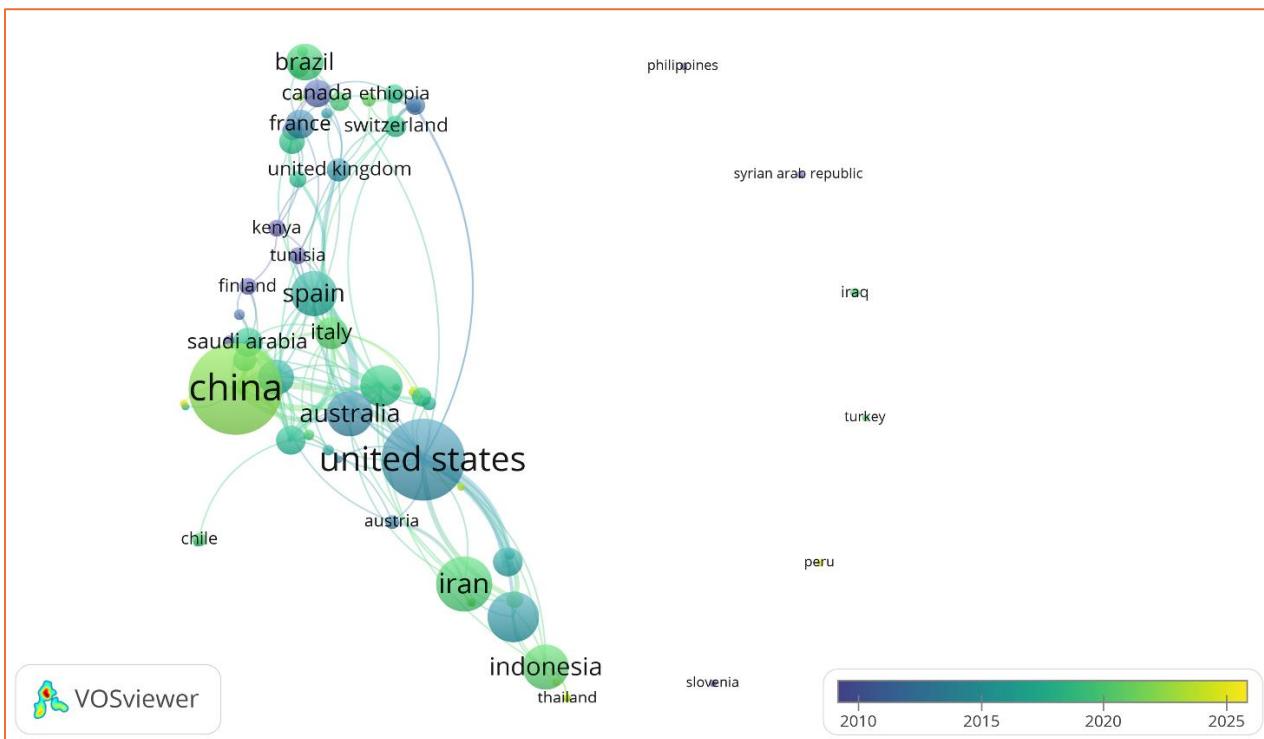
Number of Communities: 4

Size Distribution



Supplementary Figure S49A: Modularity report for Dimensions dataset Co-authorship networks by authors ($n \geq 5$)

Scopus and Dimensions Co-Authorship Networks by countries



Supplementary Figure S50: Scopus co-authorship networks by countries ($n \geq 1$). Items: 65 |
Links: 149 | Total link strength: 209 | Clusters: 6. The digital version is accessible here
<https://tinyurl.com/2yn5bxrk>

Modularity report Scopus co-authorship network by countries ($n \geq 1$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

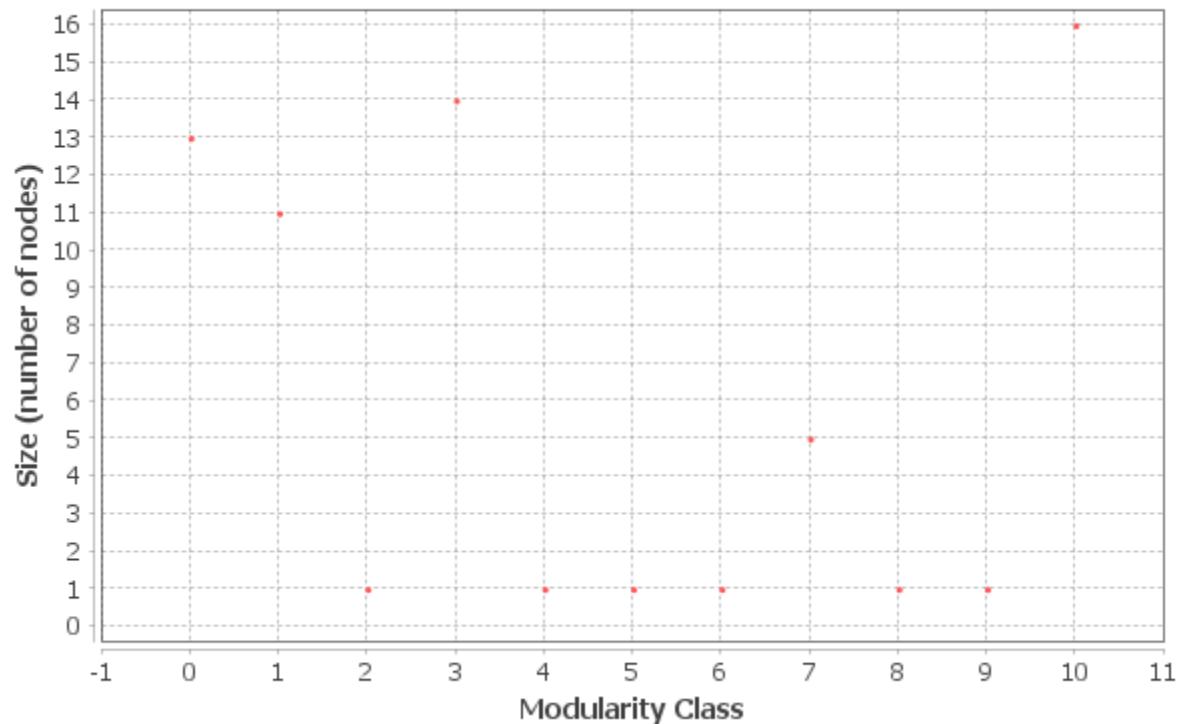
Results:

Modularity: 0.462

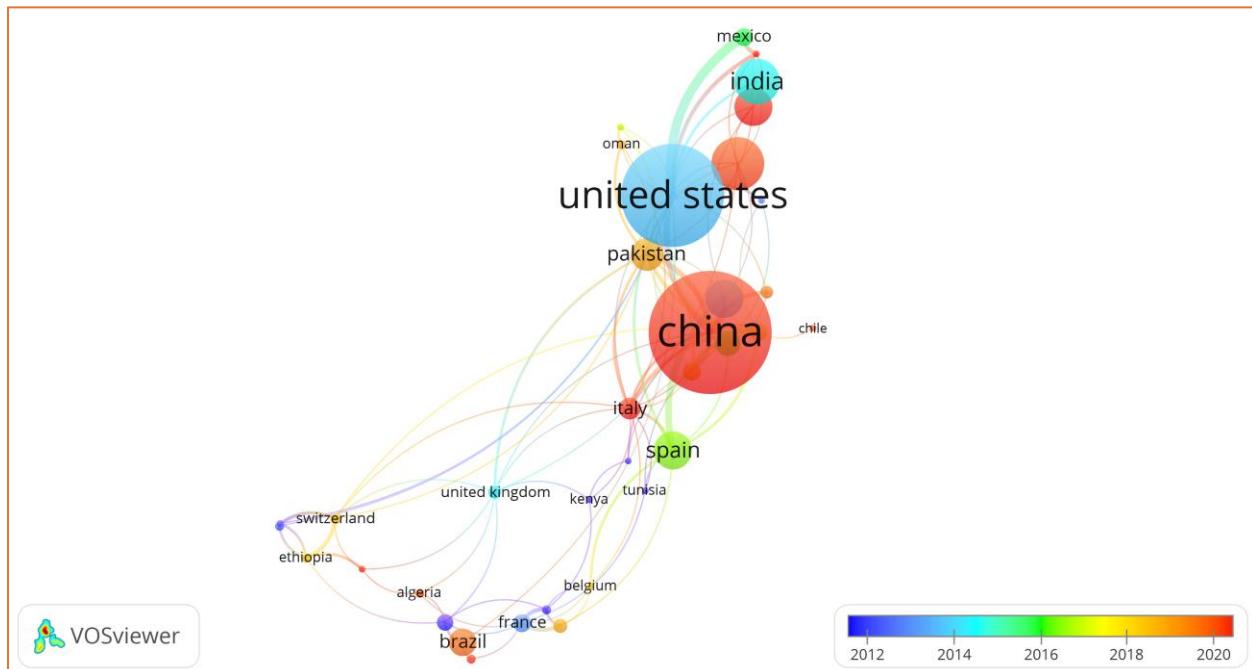
Modularity with resolution: 0.462

Number of Communities: 11

Size Distribution



Supplementary Figure S50A: Modularity report Scopus co-authorship network by countries ($n \geq 1$)



Supplementary Figure S51: Scopus Co-authorship networks by countries ($n \geq 3$). Items: 37 | Links: 109 | Total link strength: 169 | Clusters: 8. The digital version is accessible here <https://tinyurl.com/2yd89qr3>

Modularity report Scopus co-authorship network by countries ($n \geq 3$)

Randomize: On

Use edge weights: On

Resolution: 1.0

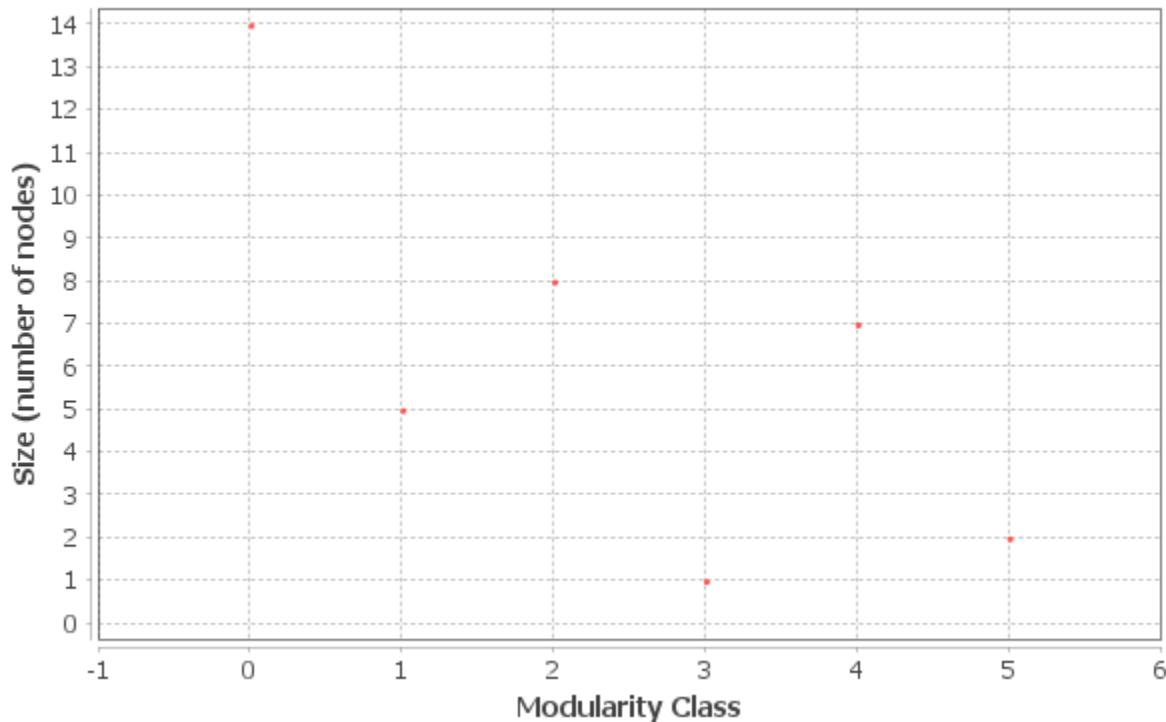
Results:

Modularity: 0.433

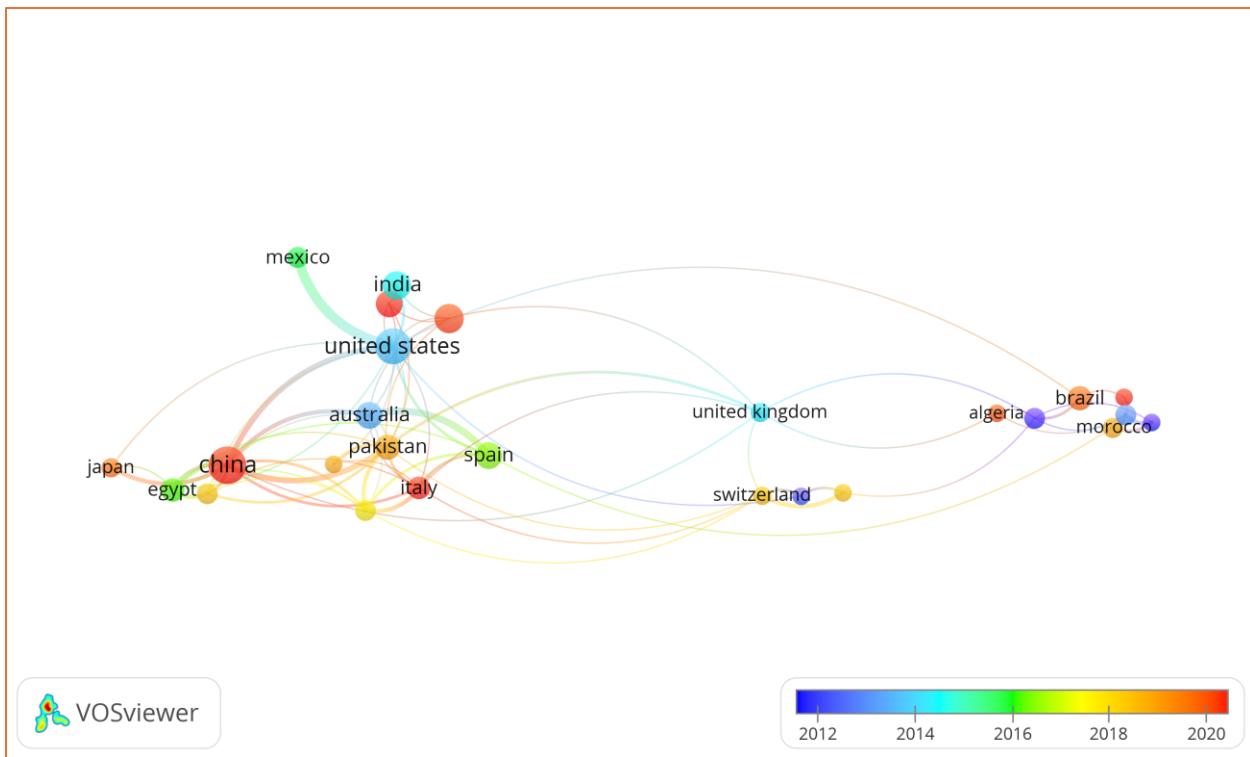
Modularity with resolution: 0.433

Number of Communities: 6

Size Distribution



Supplementary Figure S51A: Modularity report Scopus co-authorship network by countries ($n \geq 3$)



Supplementary Figure S52: Scopus co-authorship networks by countries ($n \geq 5$). Items: 26 | Links: 73 | Total link strength: 122 | Clusters: 5. The digital version is accessible here <https://tinyurl.com/22nxz5w7>

Modularity report for Scopus co-authorship network by countries ($n \geq 5$)

Randomize: On

Use edge weights: On

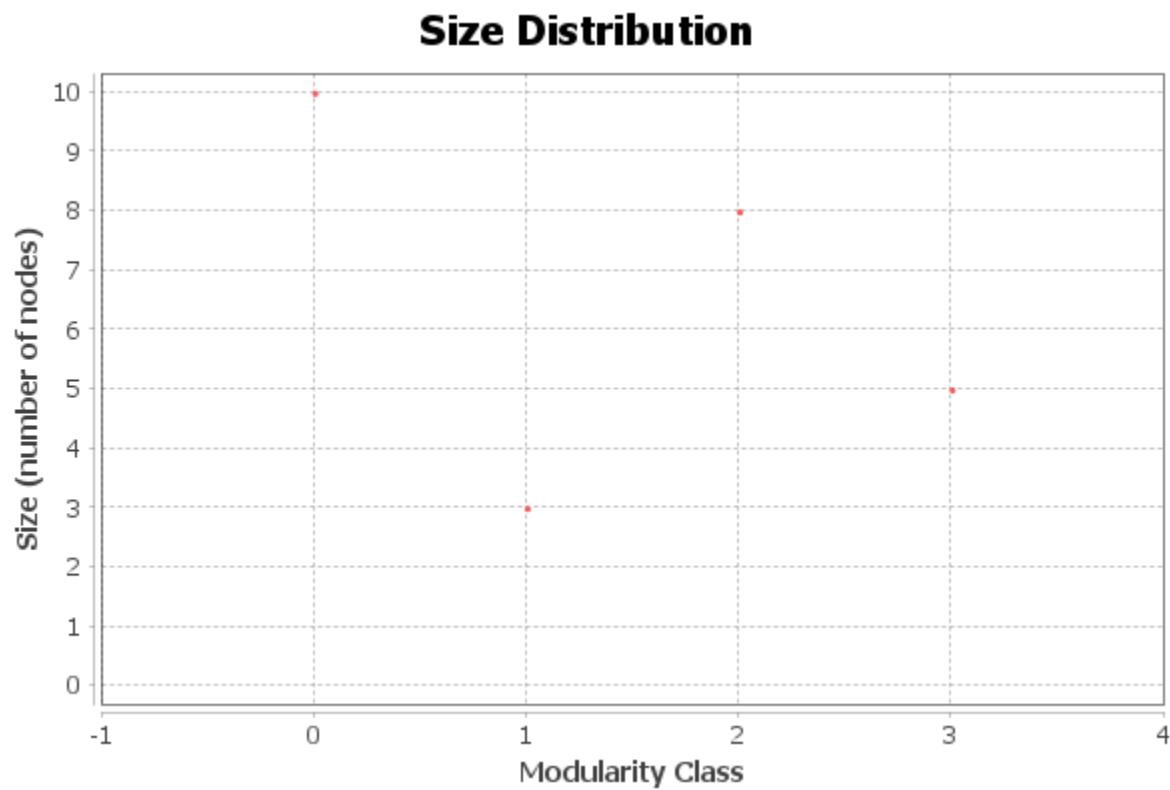
Resolution: 1.0

Results:

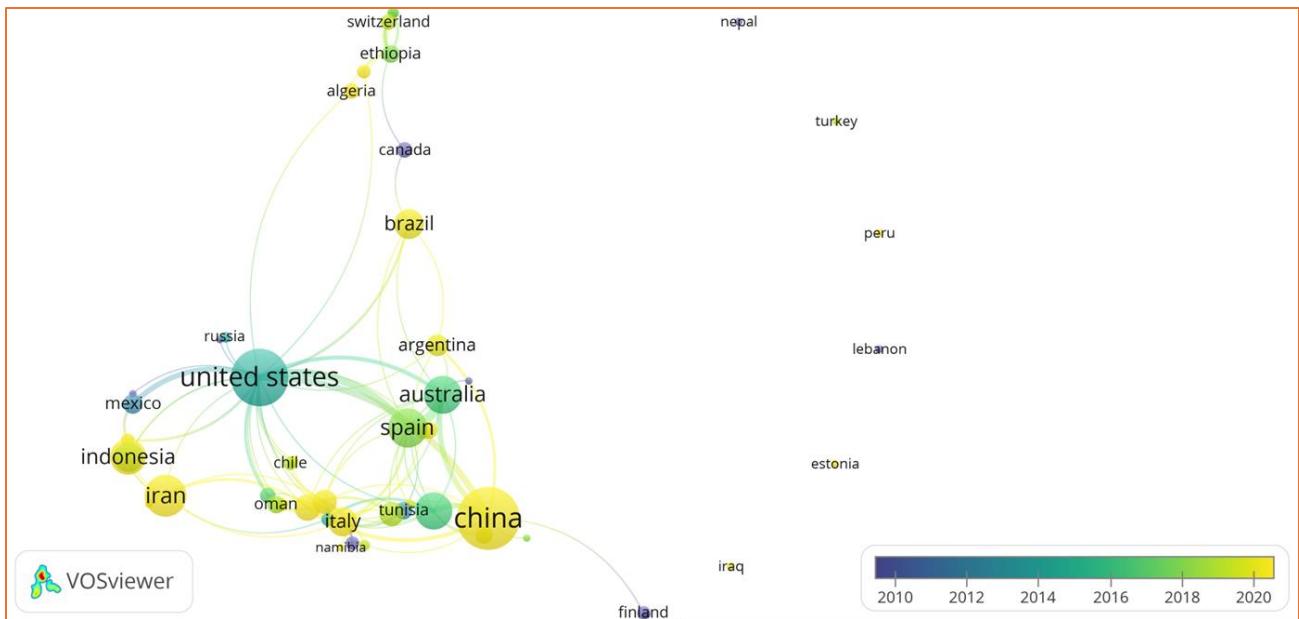
Modularity: 0.392

Modularity with resolution: 0.392

Number of Communities: 4



Supplementary Figure S52A: Modularity report for Scopus co-authorship network by countries ($n \geq 5$)



Supplementary Figure S53: Dimensions dataset Co-authorship networks by Countries ($n \geq 1$).
 Items: 53 | Links: 115 | Total link strength: 173 | Clusters: 17. The digital version is accessible here <https://tinyurl.com/2d7s66m5>

Modularity report for Dimensions dataset Co-authorship networks by Countries ($n \geq 1$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

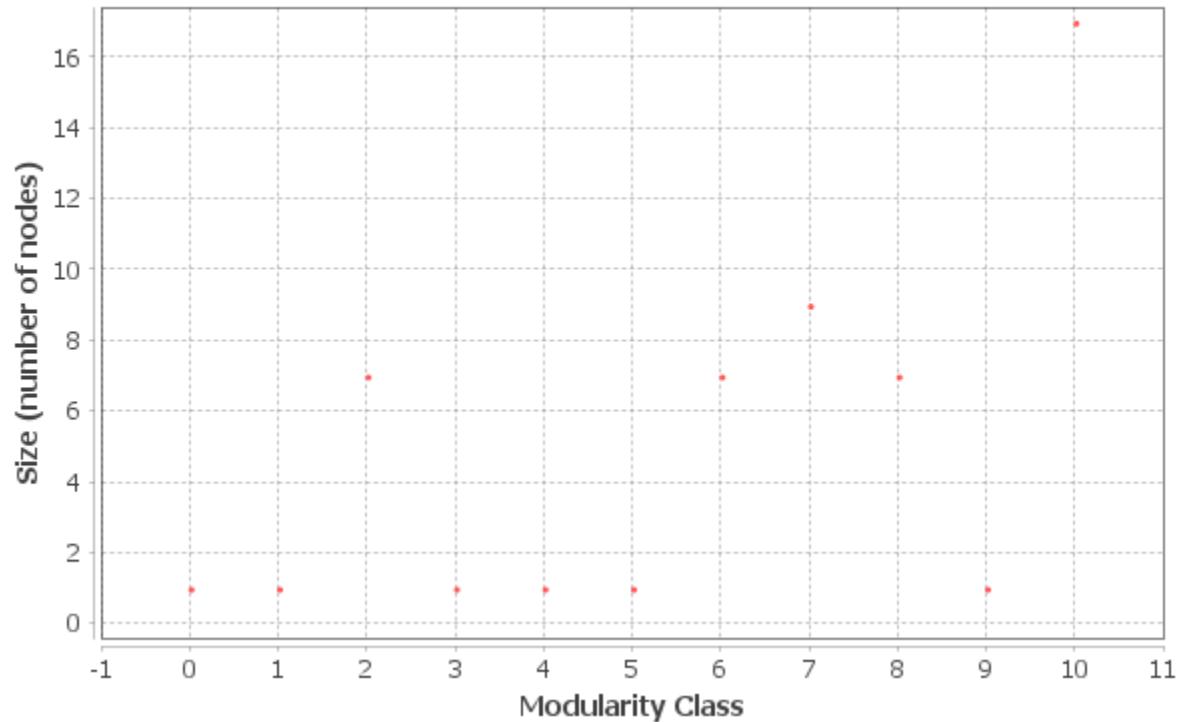
Results:

Modularity: 0.371

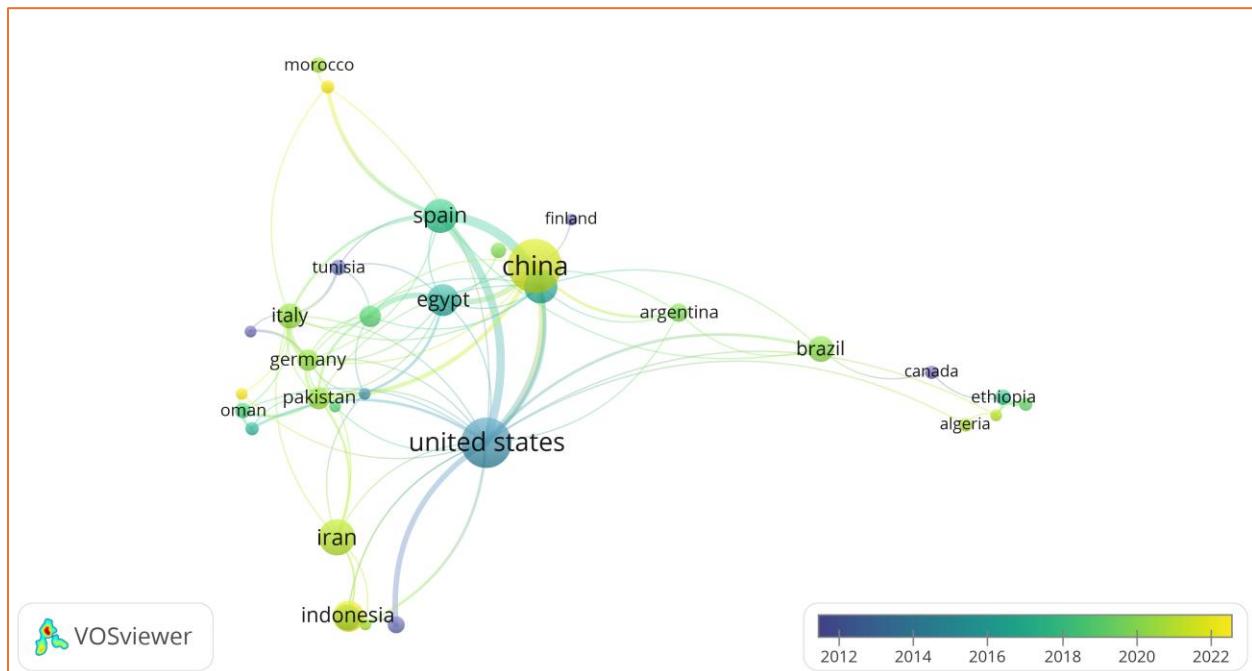
Modularity with resolution: 0.371

Number of Communities: 11

Size Distribution



Supplementary Figure S53A: Modularity report for Dimensions dataset Co-authorship networks by Countries ($n \geq 1$)



Supplementary Figure S54: Dimensions dataset Co-authorship networks by Countries ($n \geq 3$).
Items: 32 | Links: 89 | Total link strength: 142 | Clusters: 6. The digital version is accessible here
<https://tinyurl.com/2aojqy52>

Modularity report for Dimensions dataset Co-authorship networks by Countries ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

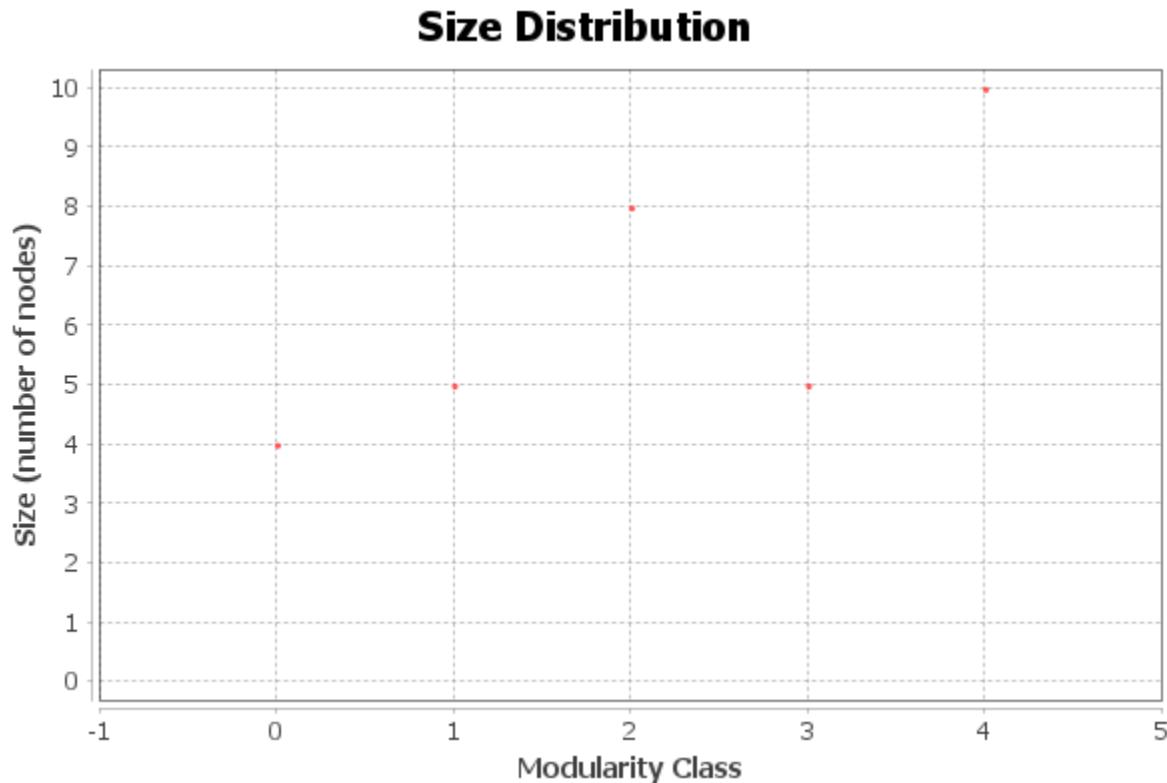
Resolution: 1.0

Results:

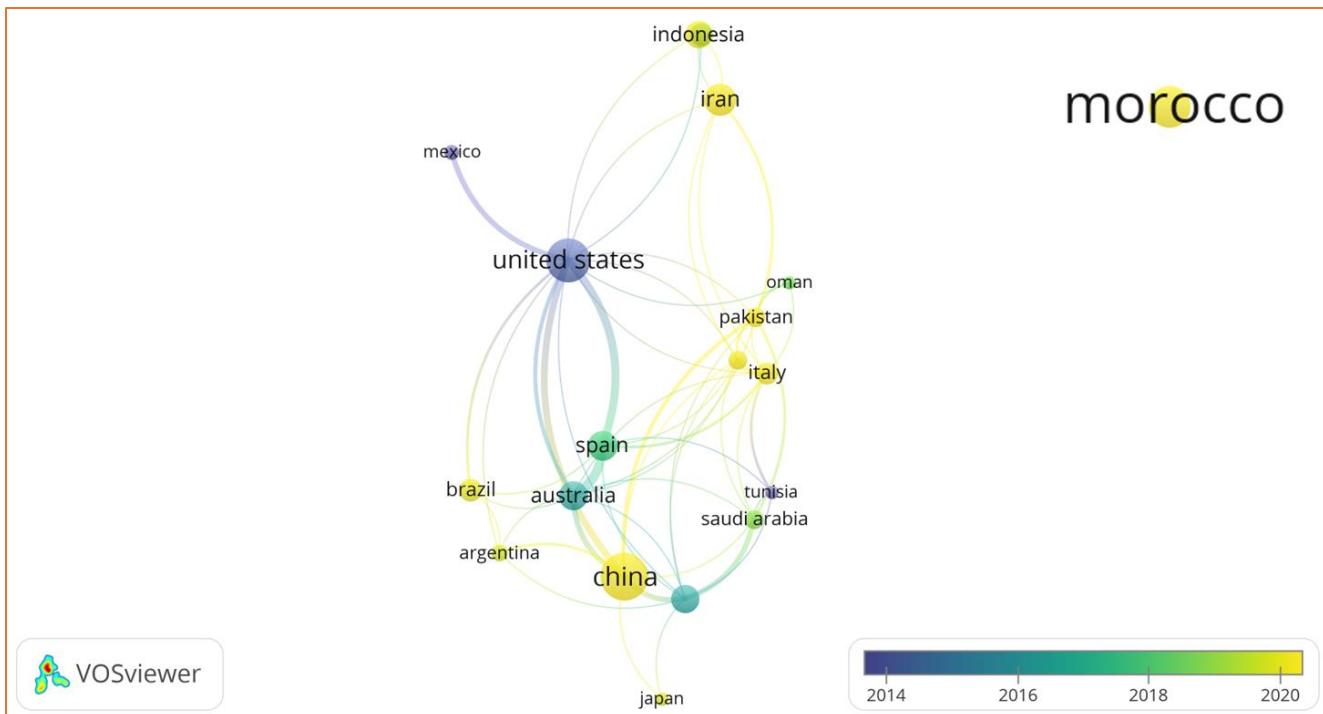
Modularity: 0.293

Modularity with resolution: 0.293

Number of Communities: 5



Supplementary Figure S54A: Modularity report for Dimensions dataset Co-authorship networks by Countries ($n \geq 3$)



Supplementary Figure S55: Dimensions dataset Co-authorship networks by Countries ($n \geq 5$).
 Items: 20 | Links: 57 | Total link strength: 99 | Clusters: 7. The digital version is accessible here
<https://tinyurl.com/2ybf3crz>

Modularity report for Dimensions co-authorship networks by Countries ($n \geq 5$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

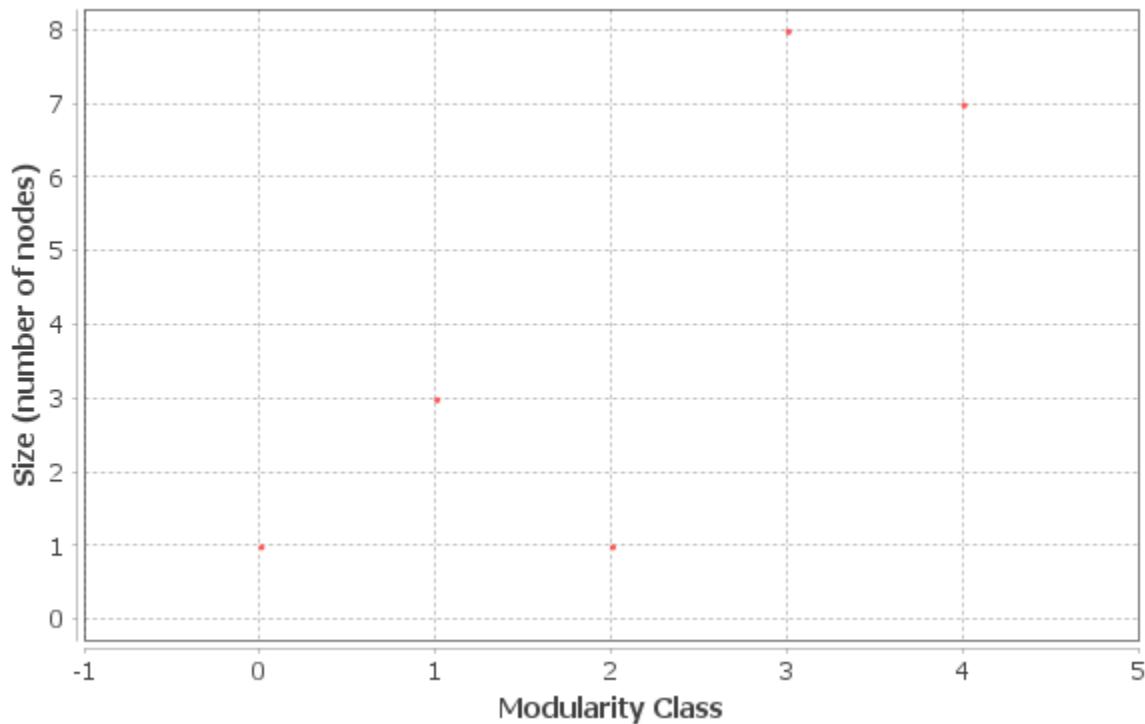
Results:

Modularity: 0.218

Modularity with resolution: 0.218

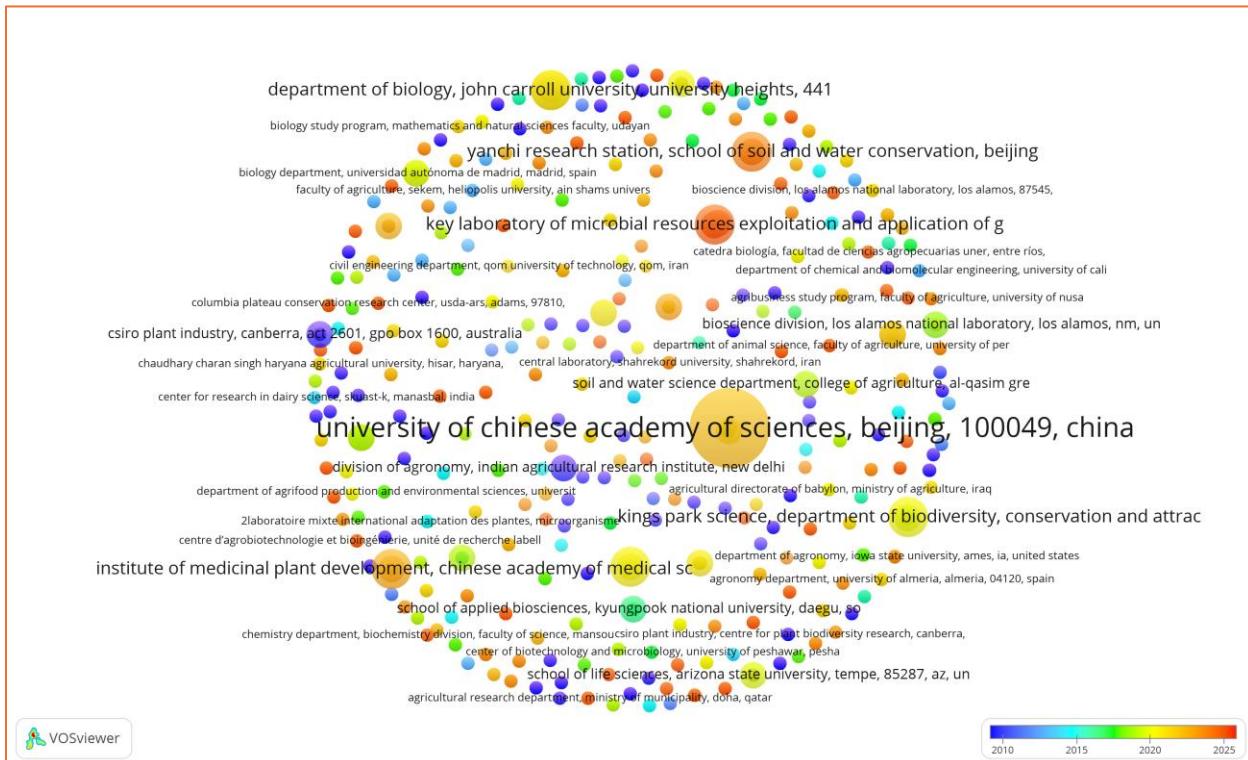
Number of Communities: 5

Size Distribution



Supplementary Figure S55A: Modularity report for Dimensions dataset Co-authorship networks by Countries ($n \geq 5$)

Scopus and Dimensions Co-authorship networks by organizations



Supplementary Figure S56: Scopus Co-authorship networks by Organizations ($n \geq 1$). Items: 933 | Links: 1403 | Total link strength: 1418 | Clusters: 291 The digital version is accessible here <https://tinyurl.com/2cl8dk94>

Modularity report Scopus co-authorship network by organizations ($n \geq 1$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

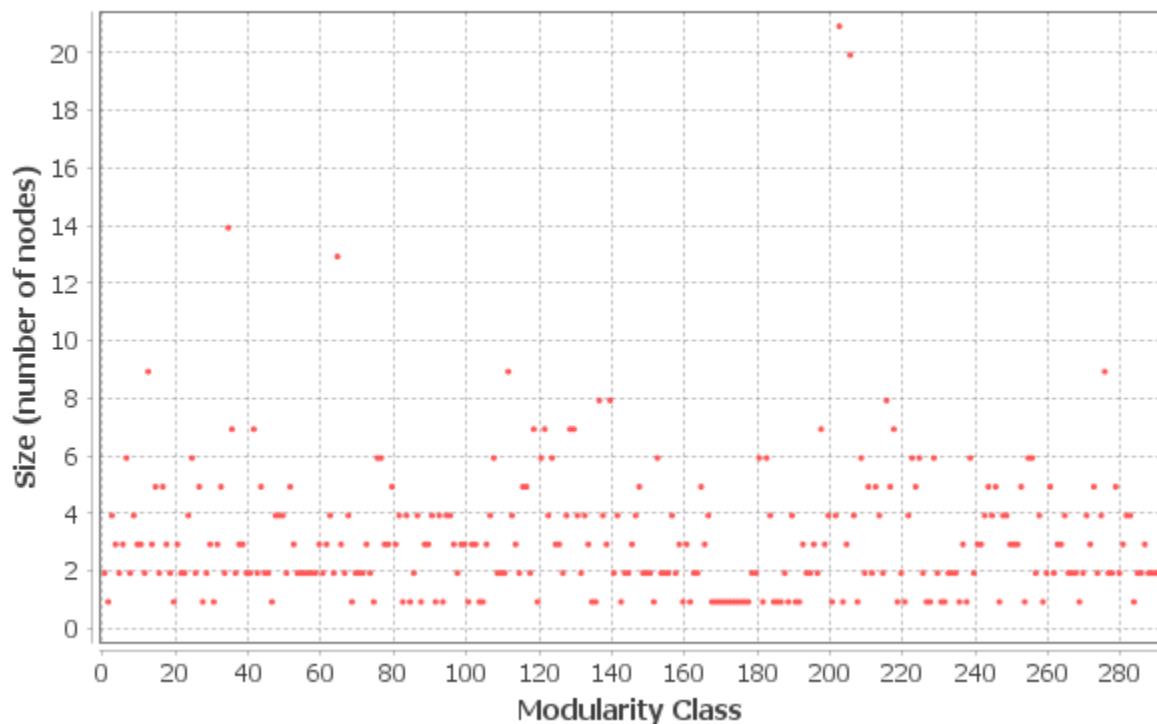
Results:

Modularity: 0.989

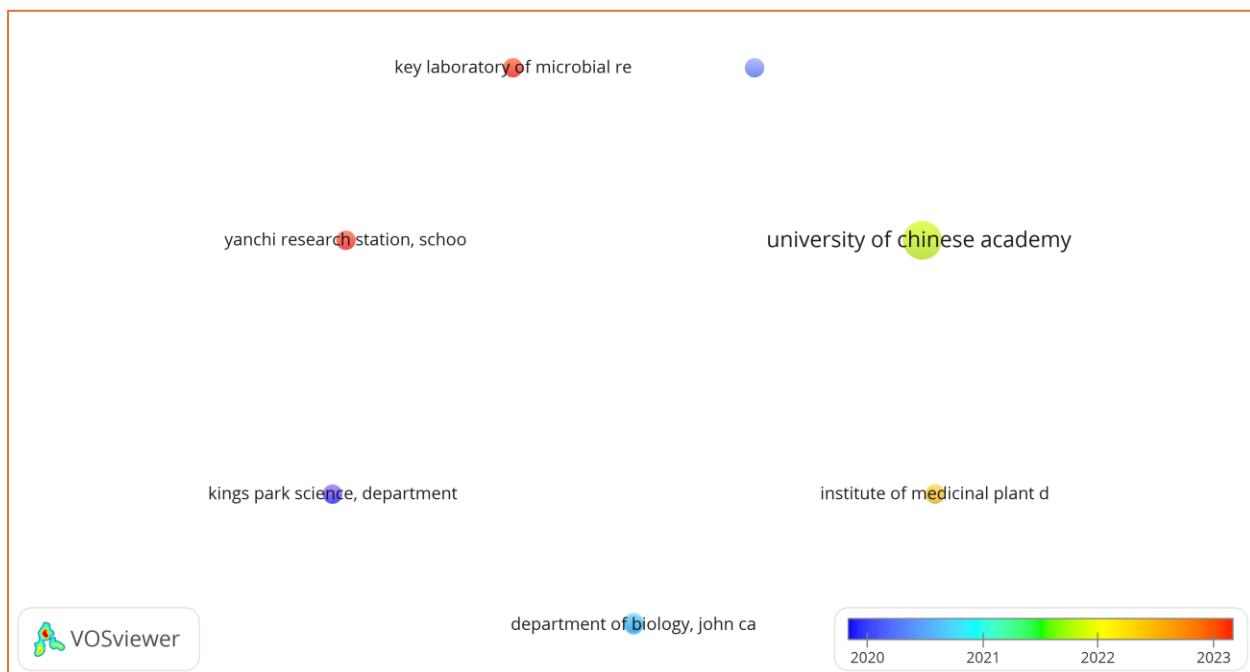
Modularity with resolution: 0.989

Number of Communities: 291

Size Distribution



Supplementary Figure S56A: Modularity report Scopus co-authorship network by organizations ($n \geq 1$)



Supplementary Figure S57: Scopus Co-authorship networks by Organizations ($n \geq 3$). Items: 8 | Links: 1 | Total link strength: 3 | Clusters: 7 The digital version is accessible here
<https://tinyurl.com/27b72geu>

Modularity report Scopus co-authorship network by organizations ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

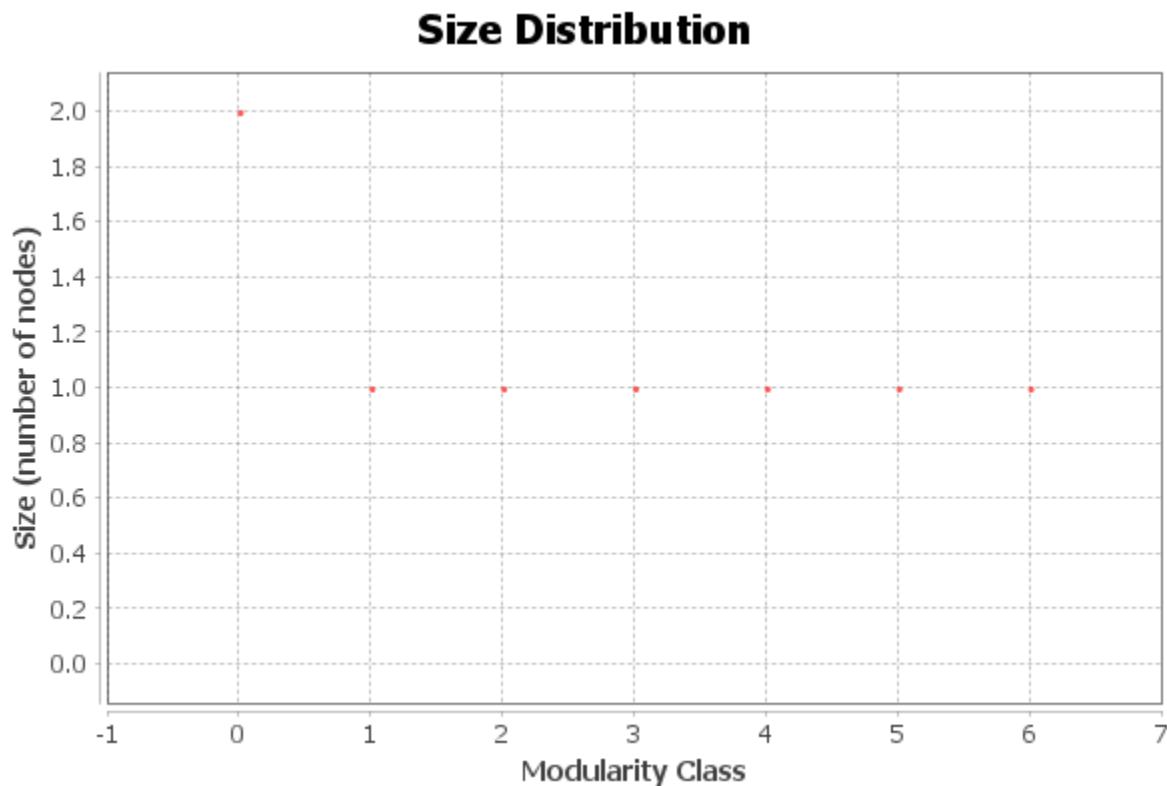
Resolution: 1.0

Results:

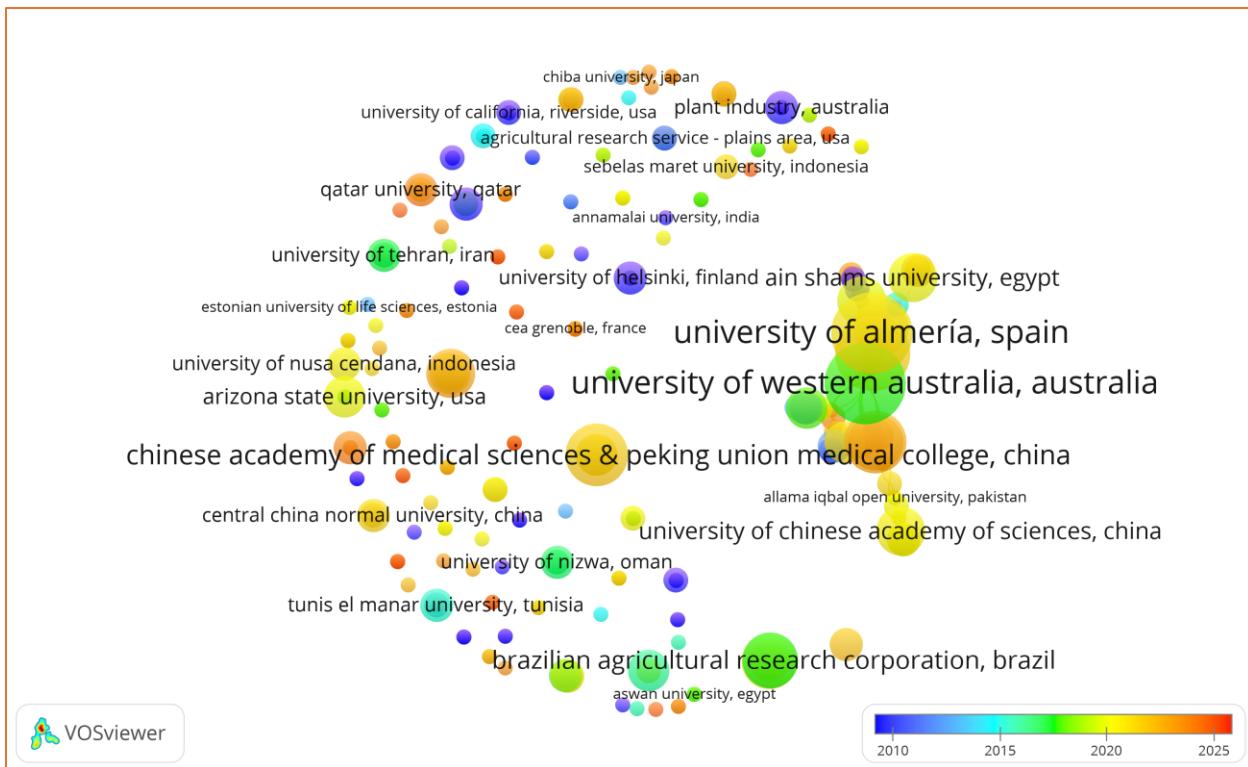
Modularity: 0.000

Modularity with resolution: 0.000

Number of Communities: 7



Supplementary Figure S57A: Modularity report Scopus co-authorship network by organizations ($n \geq 3$)



Supplementary Figure S58: Dimensions dataset Co-authorship networks by organizations ($n \geq 1$). Items: 419 | Links: 764 | Total link strength: 862 | Clusters: 105. The digital version is accessible here <https://tinyurl.com/2bchk64h>

Modularity report for Dimensions dataset Co-authorship networks by organizations ($n \geq 1$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

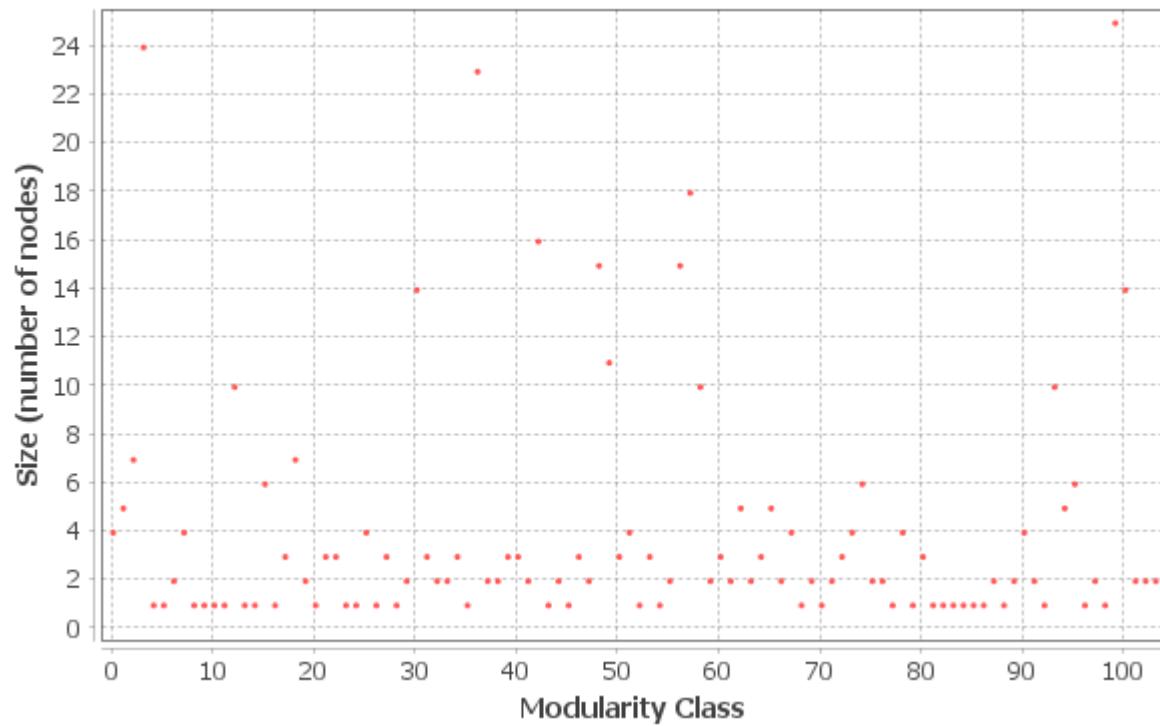
Results:

Modularity: 0.901

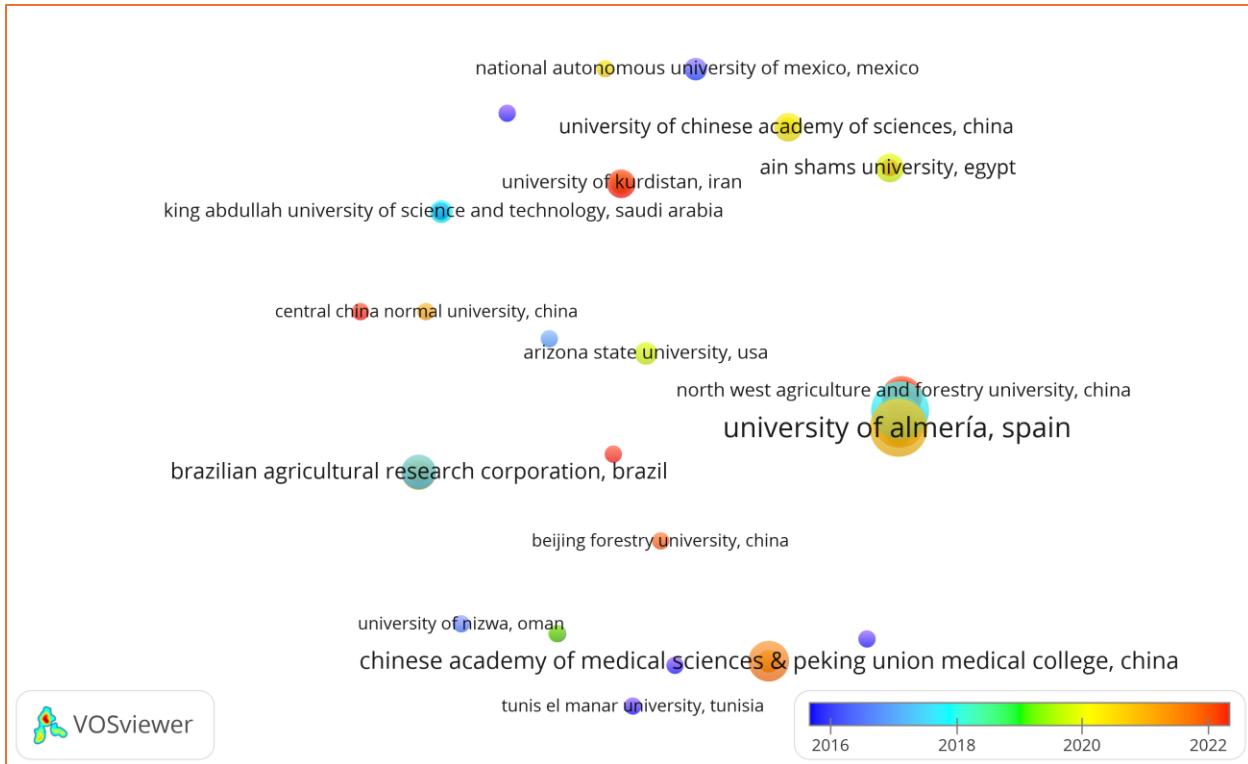
Modularity with resolution: 0.901

Number of Communities: 104

Size Distribution



Supplementary Figure S58A: Modularity report for Dimensions dataset Co-authorship networks by organizations ($n \geq 1$).



Supplementary Figure S59: Dimensions dataset Co-authorship networks by organizations ($n \geq 3$). Items: 49 | Links: 50 | Total link strength: 109 | Clusters: 22. The digital version is accessible here <https://tinyurl.com/2yg99xpr>

Modularity report for Dimensions dataset Co-authorship networks by organizations ($n \geq 3$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

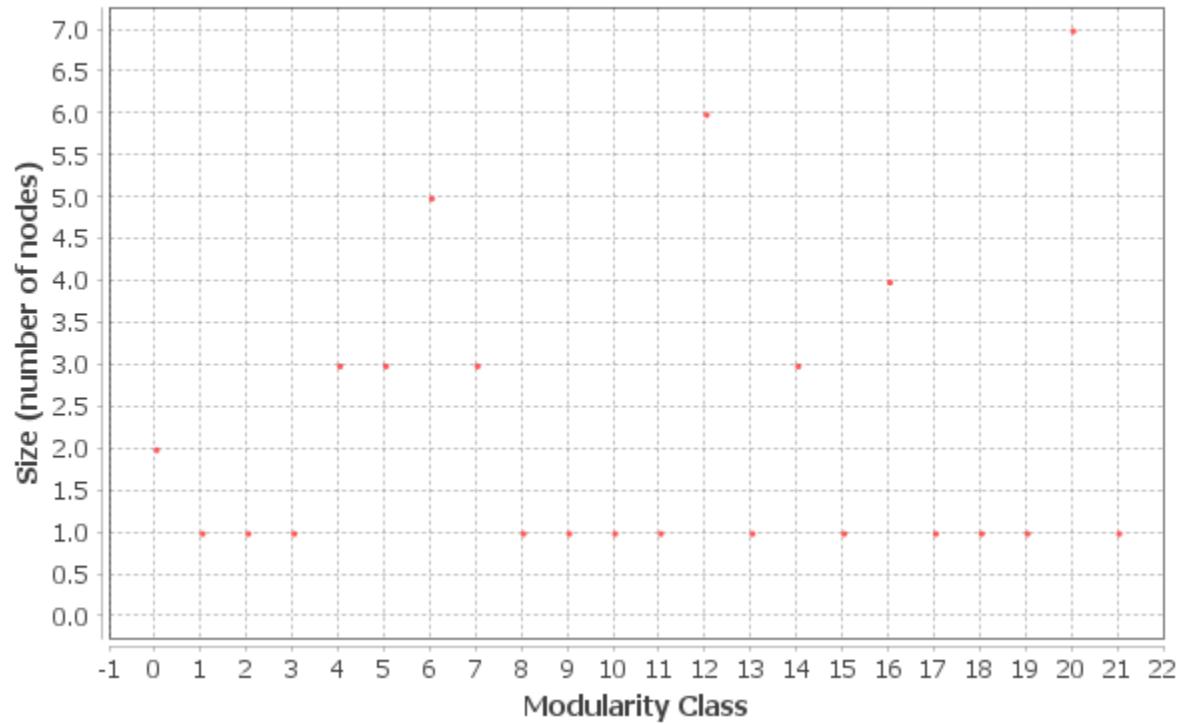
Results:

Modularity: 0.711

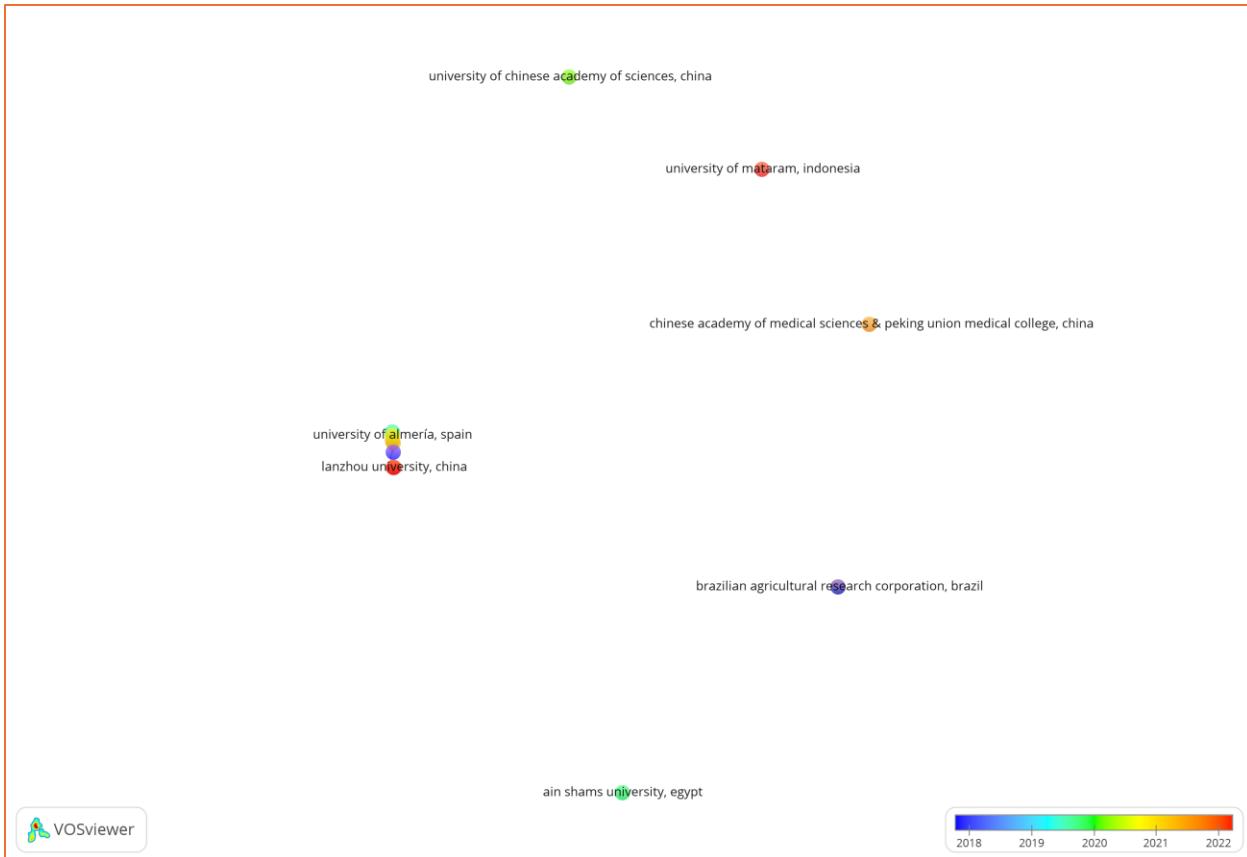
Modularity with resolution: 0.711

Number of Communities: 22

Size Distribution



Supplementary Figure S59A: Modularity report for Dimensions dataset Co-authorship networks by organizations ($n \geq 3$).



Supplementary Figure S60: Dimensions dataset Co-authorship networks by organizations ($n \geq 5$). Items: 13 | Links: 11 | Total link strength: 36 | Clusters: 8. The digital version is accessible here <https://tinyurl.com/27uj7uga>

Modularity report for Dimensions dataset Co-authorship networks by organizations ($n \geq 5$)

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

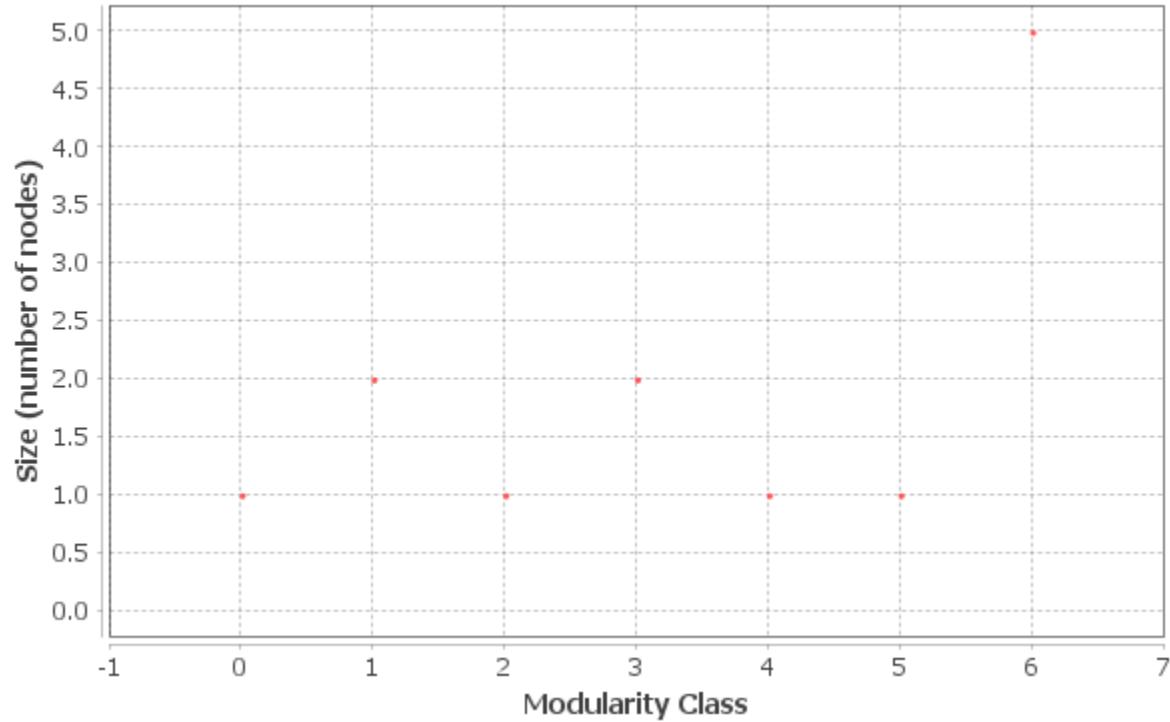
Results:

Modularity: 0.412

Modularity with resolution: 0.412

Number of Communities: 7

Size Distribution



Supplementary Figure S60A: Modularity report for Dimensions dataset Co-authorship networks by organizations ($n \geq 5$).