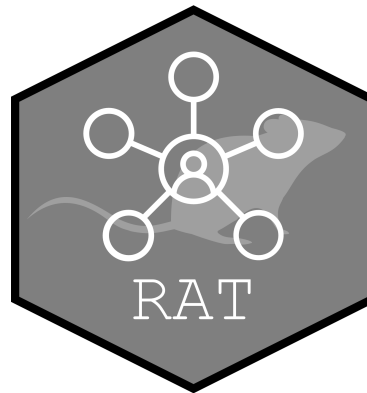


Internationalization

i-index

The i number of co-author countries in more than i publications

- For each publication by a given researcher/institution, derive the list of countries of the co-authors' institutions;
- Remove duplicated countries;
- Sum the number of instances per country across all publications;
- Order countries by their sum;
- Calculate i as the number of countries whose sum is higher or equal than their rank when ordered.



$$i * r$$

weighted i-index



Promote recognition of scientific partnerships

Incentivize collaboration and transfer of knowledge among countries

Promote the use of more inclusive metrics within Academic evaluations at personal and institutional levels

Representativeness

r-index

Overlap between an author's collaborative network and the expected network if co-authors were distributed independently of country GDP

- Calculate the expected and observed distribution (in log octaves) of global GDPs per capita of all countries represented in a set of publications;
- Remove duplicated countries within a single publication; count multiple time countries across publications;
- Exclude the author's own country;
- Standardize expected and observed distributions;
- Calculate r as the overlap between expected and observed distributions, i.e., the sum of minimum values among expected and observed for each octave.

