**Countries**

Out of 240 countries and territories, for which at least some information is available, we have excluded entities that are either dependent territories, too small and/or with too few data to derive reliable results.

The resulting sample consists of 174 countries, including a large number of developing and emerging countries, which together cover the overwhelming majority of the world's population and research output.

Data for which the country origin of authors is reported as *undefined* (about 5% of observations) has been excluded from the analysis. Data for Yugoslavia before 2007 were added to Serbia.

### Disciplines

According to the [Scopus Journal Classification](https://www.elsevier.com/solutions/scopus/how-scopus-works/content" \t "_blank), journals are classified into 4 broad subject clusters:

1) Life Sciences,

2) Physical Sciences,

3) Health Sciences

4) Social Sciences,

which are further subdivided into 27 major subject areas, such as:

1.1) Agricultural and Biological Sciences,

1.2) Biochemistry, Genetics and Molecular Biology,

1.3) Immunology and Microbiology,

1.4) Neuroscience,

1.5) Pharmacology, Toxicology and Pharmaceutics,

etc.

If a journal is assigned to multiple categories, it is fully counted in each of them.

### Journal Globalization Indicators

The methodology builds on the pioneering work by Zitt and Bassecoulard (1998), which we complement by the recent contribution by Aman (2016) and three indicators of our own.

In essence, the indicators are based on the idea that the most globalized journals have structure (documents by the country of origin of authors, etc.) that closely resembles the global discipline aggregate and vice versa.

Only journals with at least 30 documents in the particular year are included in the calculation.

#### Definitions

Nc,j,y and Nc,d,y is the number of documents with authors affiliated to the country c in the journal j and the discipline d, respectively, in the year y.

NLOCAL,j,y is the number of documents with authors from the same country as the journal's publisher in the year y.

NENG,j,y is the number of English-written documents.

Tj,y denotes the total number of documents published in the journal j in the year y.

Ds by from multipleare, i.e. Tj,y != sum(Nc,j,y).

#### Indicators:

Euclid Gini-Simpson Weighted Gini Largest Contributors  Local Authors English Documents

##### Euclidian distance of journal and discipline country distribution

g^euclid\_{j,d,y}=√∑(xc,j,y−mc,d)2

where xc,j,y is the share of the country c in the journal j and the year y:

xc,j,y=Pc,j,y/Tj,y

and mc,d is the share of the country c in the aggregate discipline d over all years:

mc,d=∑YyDc,d,y/∑Yy∑cDc,d,y

*Source:*Zitt and Bassecoulard (1998)

##### Gini-Simpson diversity of journal country distribution

g^GiniSimpson\_{j,d,y}=1−∑N2c,j,y(∑Nc,j,y)2

*Source:*Aman (2016)

##### of author’s countries distribution

*g^gini*\_{j,d,y}= xxx

where w = and v =

and xc,j,y is the share of the country c in the journal j and the year y:

xc,j,y=Pc,j,y/Tj,y

and mc,d is the share of the country c in the aggregate discipline d over all years:

mc,d=∑YyDc,d,y/∑Yy∑cDc,d,y

##### Surplus of three largest contributing countries

g^top3\_{j,d,y}=∑3c=1(xc,j,y−mc,d)

where xc,j,y is the share of the country c in the journal j and the year y:

xc,j,y=Pc,j,y/Tj,y

and mc,d is the share of the country c in the aggregate discipline d over all years:

mc,d=∑YyDc,d,y/∑Yy∑cDc,d,y

##### Share of documents from journal's domicile

g^localShare\_{j,d,y}=DLOCAL,j,yTj,y

*Source:*Zitt and Bassecoulard (1998)

^\_{j,d,y}

##### *Source: Buella-Casal.*