



Dictionary of scientometric indicators and terms

The Hirsch Index (h-index) is a scientometric indicator proposed by H. Hirsch, a physicist from the University of California at San Diego.

The criterion is based on taking into account the number of publications of the researcher (department, organization) and the number of their citations. For example, a scientist has a Hirsch index equal to h if h of his N articles are cited at least h times each, while the remaining $(N-h)$ articles are cited less than h times each.

The Hirsch index is calculated automatically based on the number of all publications of a scientist (department, organization) indexed in scientometric databases (Scopus, WoS CC, RSCI). Accordingly, its value may be different depending on the selected database.

The citation index is an abstract database that takes into account the citation of articles based on the article-by-article lists of the literature used. There are a large number of international citation systems (bibliographic databases): Scopus, Web of Science Core Collection, PubMed, MathNet, Mathematics, Chemical Abstracts, Agris, GeoRef and others.

Scopus is an Elsevier database containing annotations and information on the citation of peer-reviewed literature with built-in bibliometric mechanisms for tracking, analyzing and visualizing data.

SciVal is an analytical tool based on the Scopus database designed for scientometric analysis and planning of research activities. SciVal tools allow you to visualize the results of scientific activity, compare and track the results of the activities of any organizations, countries and predefined groups, as well as identify existing and potential opportunities for joint activities based on publication data and citations. SciVal helps you navigate the world of research and develop an optimal plan aimed at stimulating efficiency and analyzing the results of your activities.

Web of Science Core Collection (WOS CC) is an abstract-bibliographic and scientometric (bibliometric) database of Clarivate Analytics (formerly known as the Research and Intellectual Property Division of Thomson Reuters).

InCites is an analytical citation assessment tool for educational and government institutions to perform an analysis of the performance and results of the organization's work inside and outside the country on the WoS CC database.

The Russian Science Citation Index (RSCI) is a national bibliographic database of scientific publications of Russian scientists.

The citation index of a scientist/organization is the total number of references to the publications of a scientist/organization in scientific publications. Citations accumulate over the years.

The impact factor (IF) is a numerical indicator of the authority or influence of a scientific journal. The impact factor of the journal is calculated for a specific (reporting) year; characterizes the average number of references received in the reporting year by journal articles published during previous years. As a rule, two-year and five-year IF are calculated in the main bibliometric databases.

Impact factors are updated annually in the WoS CC: Journal Citation Reports (JSR) database. At the same time, JSR does not calculate impact factors for humanitarian journals.

The impact factor of the RSCI for Russian journals is calculated on the basis of scientific publications published in the NEB eLIBRARY.RU .

Cumulative impact factor – the total impact factor of journals in which articles of the organization/scientist are published. The indicator is equal to the sum of the impact factors of those journals in which the articles of the organization/scientist are published (for the reporting year). If there are several articles from the same journal, the corresponding term is multiplied by the number of articles published in this journal.

The weighted average impact factor is equal to the ratio of the cumulative impact factor to the total number of articles published during the period under review. If there is no impact factor for a journal, it is considered equal to zero, while the number of articles in such a journal is taken into account when calculating the indicator.

Quartile (quarter) Q is a category of scientific journals determined by bibliometric indicators reflecting the level of citation, that is, the demand for the journal by the scientific community. To understand what place a journal occupies in its subject area, there are quartiles of journals by impact factor.

As a result of ranking, each journal falls into one of four quartiles: from Q1 (highest) to Q4 (lowest). The most authoritative journals belong, as a rule, to the first two quartiles - Q1 and Q2. The quartile of the journal indexed in the Scopus database can be found on the website <http://www.scimagojr.com> . The quartile of the journal indexed in the Web of Science Core Collection database is on the website <https://jcr.clarivate.com/JCRLandingPageAction.action> .

SCImago Journal Rank –SJR is a metric used in the Scopus database; it is a rating of journals (developed by the University of Granada), which takes into account not only the total number of citations, but also weighted citations by year and qualitative indicators, such as the credibility of references. SJR takes into account the total number of published articles, citations, weighted citations by year, and the Hirsch index.

CiteScore is a metric in the Scopus database for measuring the value of citations of scientific periodicals, such as journals, book series, etc. CiteScore is determined by the ratio of the number of references made in a certain year to documents published in the previous 3 years in this journal to the number of documents (of the same type as links) published in this journal in the previous 3 years (previously the Impact per Publication (IPP) metric was used).

Source Normalized Impact per Paper (SNIP) is an indicator used in the Scopus database, developed at Leiden University by Professor H.F. Moed. The indicator takes into account references made in the current year to articles published during the previous three years. SNIP is an indicator normalized by the source. When calculating it, not the number of references received by publications is taken, but the number of references made in a certain array of articles (for example, within the entire scientific discipline, or a specific subject area). SNIP is used to compare journals in its subject area.

Field-Weighted Citation Impact (FWCI) – the citation index in the SciVal system, weighted by discipline, is calculated as the ratio of the number of citations of an object's publications to the average number of citations received by all other similar publications in the world. To calculate the indicator, citations received in the year of publication of the work are taken into account, as well as in the next three years, the global average is equal to one.

Category Normalized Citation Impact –CNCI is the normalized average citation by subject area in the InCites system. An indicator of scientific effectiveness in comparison, regardless of the subject area. The CNCI of a publication is calculated as the ratio of the citation of a publication to the average citation of all publications of the same type published in the same year and in the same subject area.

AuthorID –Scopus) is a profile of a scientist in the Scopus database, containing basic information about the author: full name (including spelling options), place of work, bibliographic description of articles. The author's profile in the Scopus database is generated automatically (provided that the author has at least one publication indexed in the database).

ResearcherID (WOS CC)– is an author identification system on the Web of Science platform. After registering on the site, the user is assigned an individual identification number. The presence of a ResearcherID will allow you to assign to one profile all the author's publications indexed in WoS CC, even if the spellings of the surname in them differ. Instructions for registering authors in the ResearcherID system are available at the link.

Open Researcher and Contributor ID (ORCID) is a digital identifier that is assigned to the author of scientific publications after registration on the site <http://orcid.org> and allows you to distinguish it from namesakes. The ORCID account includes information about the name of the scientist, his email address, the name of the organization and his research activities.

The AuthorID and ResearcherID identifiers can be combined with the ORCID profile.

Digital Object Identifier (DOI) is a unique identifier of a digital object (for example, a publication). The information contained in the DOI of an electronic document contains an index of its location (for example, URL), its name (title), and other object identifiers (for example, ISBN for an electronic image of a book). In fact, a DOI is a path (link) to the permanent location of a document on the Internet to obtain the necessary information about it. The document is searched by the DOI number on the websites of the International DOI Foundation (IDF) and CrossRef.