InCites
Essential Science Indicators

Quick Reference Guide

What is InCites Essential Science Indicators?

Essential Science Indicators is a compilation of science performance statistics and trends data derived from Web of Science Core Collection data.* This analytical tool surveys more than 12,000 journals from around the world for article publication and citation count performance indicators. It ranks authors, institutions, countries, and journals in 22 specific fields of research by the number of papers published, citations received, and citations per paper.

Data covers a rolling 10-year period and includes bimonthly updates to rankings and citation counts.

- Examine the research performance of top-ranking institutions, countries, journals, authors, and papers in each of the 22 research fields in ESI
- Compare the citation performance of a paper with that of its peers by both publication period and field.
- Identify trends and emerging areas of research in the sciences and social sciences.

* Data is limited to Clarivate indexed journals. Books, book chapters, or articles published in journals not indexed by Clarivate are not taken into account, either in terms of publication counts or citation counts

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Field Baselines
Baselines are annualized expected citation rates for papers in a research field. View baselines for Citation Rates, Percentiles, and Field Rankings (see the Glossary section for more info)

Citation Thresholds
View the minimum number of citations required to be ranked as a top author, institution, journal, country, or paper in each of the 22 research fields in ESI

Glossary

Citation rates
Average citation rates are calculated for each year of the 10-year period, based on accumulated citations from the year of publication to the most current bimonthly update. Averages are calculated by adding the citation counts of individual papers and dividing by the number of papers. An average for the full 10-year period is also given in All Years.

Field rankings
Field Rankings displays total papers, total citations received, citations per paper, and Hot and Highly Cited papers in each field.

Percentiles
The term *percentile* designates a citation threshold at or above that at which a fixed fraction of the papers fall. This term is used to denote any fixed fraction of top papers ordered by citation count. The levels we have selected for listing by field and year are 0.01%, 0.1%, 1.0%, 10%, 20%, and 50%.

Research fronts
A group of Highly Cited papers, referred to as “core papers,” in a specialized topic defined by co-citation analysis. Since the assignment of papers to a Research Front is not based on the journal categories used in Essential Science Indicators, Research Fronts offer an alternative classification scheme for Highly Cited papers.
### Threshholds required for an entity or paper's inclusion in Essential Science Indicators

<table>
<thead>
<tr>
<th>Entity</th>
<th>Citation percentile</th>
<th>Years of data examined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientists</td>
<td>1%</td>
<td>10</td>
</tr>
<tr>
<td>Institutions</td>
<td>1%</td>
<td>10</td>
</tr>
<tr>
<td>Countries</td>
<td>50%</td>
<td>10</td>
</tr>
<tr>
<td>Journals</td>
<td>50%</td>
<td>10</td>
</tr>
<tr>
<td>Highly Cited Papers</td>
<td>1%</td>
<td>10</td>
</tr>
<tr>
<td>Hot Papers</td>
<td>.1%</td>
<td>2</td>
</tr>
</tbody>
</table>

### Top papers

- **Highly Cited Papers**: The top-cited papers over the last 10 years in 22 scientific fields. Rankings are based on meeting a threshold of the top 1% by field and year based on total citations received.

- **Hot Papers**: Papers published in the past two years that receive enough citations during the most recent bimonthly update to place them in the top 0.1% when compared to peer papers.

### Getting help

Click the Help button on any page to get detailed help on features as well as detailed search tips and examples.

Learn more about Essential Science Indicators at:

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