

## Statement by the RU11 University Association

### Request for a revision of the assessment methods used by Thomson Reuters for the Times Higher Education (THE) World University Rankings

July 31, 2011

The purpose of analyzing academic research data, particularly publication and citation trends is to provide diverse objective information on universities and other academic institutions that can be used by researchers and institutions for various evaluations and the setting of objectives. The 2010 Thomson Reuters / THE World University Rankings, however, do not give sufficient consideration to the unique characteristics of universities in different countries or the differing research needs and demands from society based on country, culture and academic field. As a result, those rankings are likely to lead to an unbalanced misleading and misuse of the citation index.

RU11 strongly requests, therefore, that Thomson Reuters / THE endeavors to contribute to academic society by providing objective and impartial data, rather than imposing a simplistic and trivialized form of university assessment.

Specifically, we request that Thomson Reuters addresses the following three issues:

1. The ranking of citations based on either citations per author (or faculty) or citations per paper represent two fundamentally different ways of thinking with regards to academic institutions: are the institutions to be viewed as an aggregation of their researchers, or as an aggregation of the papers they have produced? We believe that the correct approach is to base the citations ranking on citations per faculty, as has been the practice in the past.
2. We request a revision of the method used for regional modification.
3. We request the disclosure of the raw numerical data used to calculate the citation impact score for the various research fields at each university.

### The RU11 University Association



北海道大学  
HOKKAIDO UNIVERSITY

Hokkaido University



東北大学  
TOHOKU UNIVERSITY

Tohoku University



筑波大学  
University of Tsukuba

Tsukuba University



東京大学  
THE UNIVERSITY OF TOKYO

University of Tokyo



早稲田大学  
WASEDA University

Waseda University



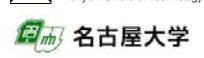
慶應義塾大学

Keio University



東京工業大学  
Tokyo Institute of Technology

Tokyo Institute of Technology



名古屋大学

Nagoya University



京都大学  
KYOTO UNIVERSITY

Kyoto University



大阪大学  
OSAKA UNIVERSITY

Osaka University



九州大学

Kyushu University

### Attached Reference Materials

In support of the above statement, we have provided an analysis of discrepancies in rankings based on the following publicly available data:

1. The rankings based solely on citations per paper for the 27 universities in the Top Asian Universities 2010, published in the Time HE World University Rankings 2010–2011 (published in September 2010, covering a 5-year period, with regional modification).  
[http://www.timeshighereducation.co.uk/world-university-rankings/2010–2011/asia.html#score\\_CI%7Csort\\_ind%7Creverse\\_false](http://www.timeshighereducation.co.uk/world-university-rankings/2010–2011/asia.html#score_CI%7Csort_ind%7Creverse_false)
2. The total figures for the 11-year period from January 1, 2000 to December 31, 2010, as included in Thomson Reuters' Essential Science Indicators (published in April 2011, covering an 11-year period, no regional modification).  
<http://isiknowledge.com/esi>
3. Quacquarelli Symonds The 2010 QS Asian University Rankings (citations per paper, covering a 5-year period, no regional modification)  
<http://www.topuniversities.com/university-rankings/asian-university-rankings/2010/indicator-rankings/citations-per-faculty>
4. The 2010 QS World University Rankings (citations per faculty, covering a 5-year period, no regional modification)

### Explanation of Reference Materials

1. Reference 1: Comparison with the citations ranking by Quacquarelli Symonds (no regional modification).  
This chart compares the citations per paper rankings produced by Thomson Reuters with those produced by Quacquarelli Symonds. The former shows the results after regional modification, and the latter shows the results with no regional modification. The huge impact that the regional modification method used by Thomson Reuters has on the ranking of Japanese universities is very apparent. While there may be differences in the academic databases which are being used as the raw data, it seems likely that the regional modification is the cause of such large discrepancies.
2. Reference 2: Comparison with the citations ranking for an 11-year period (no regional modification).  
This chart compares the 5-year period citations per paper rankings (with regional modification) with the 10-year period citations per paper rankings (no regional modification). Both rankings are based on Thomson Reuters' data. This comparison shows that when the period of assessment is increased, the

positions of historically respected institutions, including those in Japan, consistently improve. This is due to the fact that basic research requires a relatively long time for its value to be understood. This would seem to indicate that the 2010 Times Higher Education World University Rankings are excessively weighted in favor of research which delivers quickly attainable benefits.

3. Reference 3: Comparison of the rankings of the RU11 universities when ranked by citations per paper and by citations per faculty.

This chart compares Thomson Reuters' citations per paper ranking with Quacquarelli Symonds' citations per faculty ranking. The two rankings cover the same 5-year period; however, the Thomson Reuters ranking includes regional modification. The rank of many institutions, including the RU11 universities is higher in the citations per faculty ranking. The 2010 Times Higher Education World University Rankings give great recognition to so-called "home run papers," while the smaller, accumulative contributions to academia made by scholars producing "multi hit" papers are undervalued. It is questionable whether this is an appropriate way to evaluate academic research.

Attachments:

Reference 1: Comparison with the citations ranking by Quacquarelli Symonds (no regional modification)

Reference 2: Comparison with the citations ranking for an 11-year period (no regional modification)

Reference 3: Comparison of the ranking of the RU11 universities when ranked by citations per paper and by citations per faculty

# Reference 1: Discrepancies in the ranking order of the RU11 universities in the citations ranking by Quacquarelli Symonds (no regional modification).

The ranking of 27 universities in the Top Asian Universities 2010 ranking, as published in the Times HE WUR 2010–2011

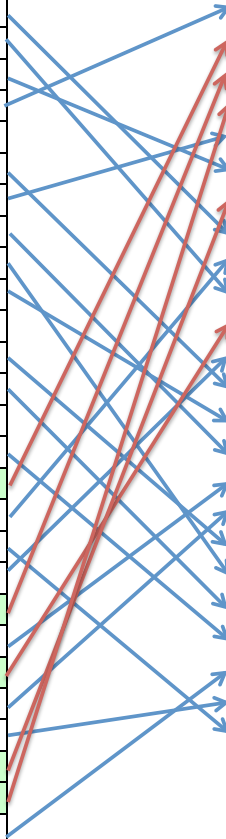
Criterion: Citations (5-year period, with regional modification, citations per paper) Fundamental Database: 1

The ranking of 24 universities in the 2010 QS Asian University Rankings

Criterion: Citations (5-year period, no regional modification, citations per paper) Fundamental Database: 3

Top Asian Universities 2010 by Citations (5-year period, published in September 2010)		
	INSTITUTION	COUNTRY / REGION
1	Hong Kong University of Science and Technology	Hong Kong
2	Hong Kong Baptist University	Hong Kong
3	Pohang University of Science and Technology	Republic of Korea
4	University of Hong Kong	Hong Kong
5	Bilkent University	Turkey
6	University of Science and Technology of China	China
7	National University of Singapore	Singapore
8	Peking University	China
9	Sun Yat-sen University	China
10	National Tsing Hua University	Taiwan
11	Middle East Technical University	Turkey
12	Nanjing University	China
13	Hong Kong Polytechnic University	Hong Kong
14	National Taiwan University	Taiwan
15	National Sun Yat-Sen University	Taiwan
16	University of Tokyo	Japan
17	Seoul National University	Republic of Korea
18	Tsinghua University	China
19	Yonsei University	Republic of Korea
20	Kyoto University	Japan
21	Korea Advanced Institute of Science and Technology	Republic of Korea
22	Tokyo Institute of Technology	Japan
23	Nanyang Technological University	Singapore
24	Zhejiang University	China
25	Tohoku University	Japan
26	Osaka University	Japan
27	National Chiao Tung University	Taiwan

	Asia Ranking
2010 QS Asian University Rankings (citations per paper, 5-year period)	
University of Hong Kong	2
University of Tokyo	3
Kyoto University	4
Osaka University	5
National University of Singapore	6
Pohang University of Science and Technology	14
Tohoku University	32
Hong Kong University of Science and Technology	33
Seoul National University	35
Hong Kong Baptist University	39
Tokyo Institute of Technology	47
Yonsei University	52
University of Science and Technology of China	60
National Tsing Hua University	71
Peking University	74
Korea Advanced Institute of Science and Technology	81
Nanyang Technological University	84
Nanjing University	105
Sun Yat-sen University	109
Hong Kong Polytechnic University	130
National Sun Yat-Sen University	unknown
National Chiao Tung University	154
Zhejiang University	186
Tsinghua University	214
Three other universities not included	



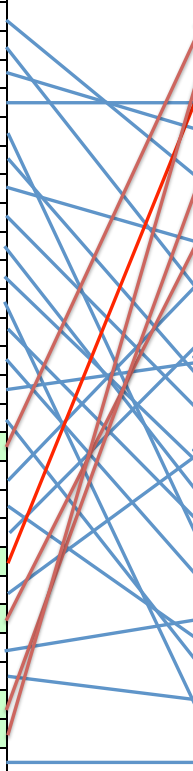
# Reference 2: Discrepancies in the ranking order of the RU11 universities in the citations ranking over an 11-year period (no regional modification).

The ranking of 27 universities in the Top Asian Universities 2010 ranking, as published in the Times HE WUR 2010–2011  
 Criterion: Citations (5-year period, with regional modification, citations per paper) Fundamental Database: 1

Ranking based on the average values for the 11-year period included in Thomson Reuters' Essential Science Indicators (published in April 2011)  
 Criterion: Citations (11-year period, no regional modification, citations per paper) Fundamental Database: 2

Top Asian Universities 2010 by Citations (5-year period, published in September 2010)		
	INSTITUTION	COUNTRY / REGION
1	Hong Kong University of Science and Technology	Hong Kong
2	Hong Kong Baptist University	Hong Kong
3	Pohang University of Science and Technology	Republic of Korea
4	University of Hong Kong	Hong Kong
5	Bilkent University	Turkey
6	University of Science and Technology of China	China
7	National University of Singapore	Singapore
8	Peking University	China
9	Sun Yat-sen University	China
10	National Tsing Hua University	Taiwan
11	Middle East Technical University	Turkey
12	Nanjing University	China
13	Hong Kong Polytechnic University	Hong Kong
14	National Taiwan University	Taiwan
15	National Sun Yat-Sen University	Taiwan
16	University of Tokyo	Japan
17	Seoul National University	Republic of Korea
18	Tsinghua University	China
19	Yonsei University	Republic of Korea
20	Kyoto University	Japan
21	Korea Advanced Institute of Science and Technology	Republic of Korea
22	Tokyo Institute of Technology	Japan
23	Nanyang Technological University	Singapore
24	Zhejiang University	China
25	Tohoku University	Japan
26	Osaka University	Japan
27	National Chiao Tung University	Taiwan

Ranking of research institutions based on Thomson Reuters' Essential Science Indicators (citations per paper, 11-year period from 2000–2010)		
	Asia Ranking	World Ranking
1	1	133
2	2	144
3	3	147
4	4	177
5	5	unknown
6	6	189
7	7	unknown
8	8	193
9	9	194
10	10	196
11	11	unknown
12	12	unknown
13	13	197
14	14	198*
15	15	198*
16	16	unknown
17	17	unknown
18	18	198*
19	19	198*
20	20	unknown
21	21	unknown
22	22	unknown
23	23	198*
24	24	unknown
25	25	198*
26	26	unknown
27	27	unknown



\* World ranking information gathered by the Chinese Academy of Sciences  
 Note: The Asia rankings above were calculated by individually referencing each institution from Essential Science Indicators. Government research institutions, such as JST and RIKEN are not included.

# Reference 3: Comparison of the rankings of the RU11 universities when ranked by citations per paper and by citations per faculty

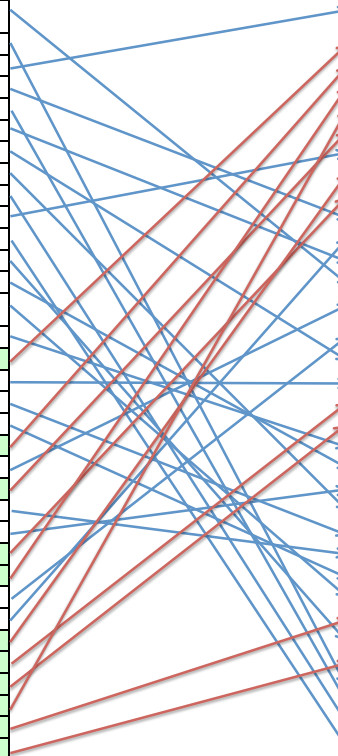
The ranking of 27 universities in the Top Asian Universities 2010 ranking, as published in the Times HE WUR 2010–2011

Criterion: Citations (5-year period, with regional modification, citations per paper) Fundamental Database: 1

The ranking of 27 universities in the 2010 QS World University Rankings

Criterion: Citations (5-year period, no regional modification, citations per paper / citations per faculty) Fundamental Database: 4

Times HE Top Asian Universities 2010 by Citations (5-year period, published in September 2010)		
	INSTITUTION	COUNTRY / REGION
1	Hong Kong University of Science and Technology	Hong Kong
2	Hong Kong Baptist University	Hong Kong
3	Pohang University of Science and Technology	Republic of Korea
4	University of Hong Kong	Hong Kong
5	Bilkent University	Turkey
6	University of Science and Technology of China	China
7	National University of Singapore	Singapore
8	Peking University	China
9	Sun Yat-sen University	China
10	National Tsing Hua University	Taiwan
11	Middle East Technical University	Turkey
12	Nanjing University	China
13	Hong Kong Polytechnic University	Hong Kong
14	National Taiwan University	Taiwan
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16	University of Tokyo	Japan
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19	Yonsei University	Republic of Korea
20	Kyoto University	Japan
21	Korea Advanced Institute of Science and Technology	Republic of Korea
22	Tokyo Institute of Technology	Japan
23	Nanyang Technological University	Singapore
24	Zhejiang University	China
25	Tohoku University	Japan
26	Osaka University	Japan
27	National Chiao Tung University	Taiwan
Below 27	The Chinese University of Hong Kong	Hong Kong
Below 27	Nagoya University	Japan
Below 27	Kyushu University	Japan
Below 27	University of Tsukuba	Japan
Below 27	Hokkaido University	Japan
Below 27	Keio University	Japan
Below 27	Waseda University	Japan



QS Asian University Rankings 2010 - Top 200				
		citations/faculty World Ranking	citations/faculty Asia Ranking	
	Pohang University of Science And Technology (POSTECH)	Korea, South	56	1
	The University of Tokyo	Japan	80	2
	Kyoto University	Japan	86	3
	Osaka University	Japan	88	4
	Hokkaido University	Japan	110	5
	Tokyo Institute of Technology	Japan	111	6
	National Tsing Hua University	Taiwan	123	7
	Nagoya University	Japan	127	8
	Tohoku University	Japan	140	9
	University of Hong Kong	Hong Kong	156	10
	The Chinese University of Hong Kong	Hong Kong	161	11
	University of Science and Technology of China	China	178=	12
	The Hong Kong University of Science and Technology	Hong Kong	204	13
	KAIST - Korea Advanced Institute of Science & Technology	Korea, South	216	14
	National Chiao Tung University	Taiwan	223	15
	National University of Singapore (NUS)	Singapore	224	16
	Seoul National University	Korea, South	233	17
	Kyushu University	Japan	235=	18
	University of Tsukuba	Japan	266	19
	National Sun Yat-sen University	Taiwan	268=	20
	The Hong Kong Polytechnic University	Hong Kong	283	21
	Zhejiang University	China	284	22
	Peking University	China	unknown	unknown
	Tsinghua University	China	unknown	unknown
	Nanyang Technological University (NTU)	Singapore	unknown	unknown
	Yonsei University	Korea, South	unknown	unknown
	National Taiwan University (NTU)	Taiwan	unknown	unknown
	Keio University	Japan	unknown	unknown
	Nanjing University	China	unknown	unknown
	Waseda University	Japan	unknown	unknown
	Hong Kong Baptist University	Hong Kong	unknown	unknown
	Bilkent University	Turkey	unknown	unknown
	Sun Yat-sen University	China	unknown	unknown
	Middle East Technical University	Turkey	unknown	unknown