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**INTERNATIONAL JOURNAL OF AGRICULTURAL ECONOMICS: A  
SCIENTOMETRICS STUDY DURING (2012-2016)**

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**ABSTRACT :** *The present study is based on the Scientometrics and this is a type of research method used in library and information science. Analysis of international peer-reviewed journal of Agricultural Economics. It is based on the references appended to International Journal of "Agricultural Economics" during 2012-2016. The present study is based on 10150 references appended to 308 articles contributed by the authors in International Journal on Agricultural Economics. It was found that journals citations are more in number than the other citations. In authorship pattern, it was found that solo research is predominant then collaborative research. The degree of collaboration was calculated & it was found that the single authorship trend is Decrease gradually in International Journal of Agricultural Economics. It was seen that researchers cite latest documents. The study shows the period of International Journal of Agricultural Economics is 5 years approximately.*

**KEYWORDS**

**E- Journal, Agricultural, Economics, Scientometrics, Authorship Pattern, Quantitative Data.**

**INTRODUCTION**

The origins of the term Scientometrics reach further back, when two Russian scientists Namilov and Mulchenko coined the Russian term 'naukometriya', the Russian equivalent of the term Scientometrics (Nalimov & Mulechenko, 1969; Nalimov, 1970). The focus of Scientometrics is the measurement of science and is therefore concerned with the growth, structure, interrelationship and productivity of scientific disciplines (Hood & Wilson, 2001a, 291).

The research has been done on Scientometrics analysis: International Journal on Agricultural Economics. Whereas the studies on Scientometrics and its papers objectives were done by, Waghmare S.S., (2014). Kadam S.S., (2014). Bhedekar S.L. & Sonawane S.S. (2014), Garg K.C. and Anjana A. K. (2014), Rao Nageswara K., & Other (2014), Gopalkrishnan S & Other (2015), Kumar Anil H., Dora Mallikarjun & Desai Asha (2015), Shelke S. M., (2015), In addition to this.

**E- JOURNAL**

"E-Journals are defined as the grouping of information that is sent out in electronic form with some regularity. It covers any serial or serial like publication available in electronic format, which is produced, published and distributed electronically" (Ramesh, Yeranagula, 2003).

## SELECTED E- JOURNAL

### Agricultural Economics

The journal of Agricultural Economics is a Peer-Reviewed Journal Published in per month by Czech Academy of Agricultural Sciences. The journal was firstly published in the year 1954. This journal thematic scope is original/authentic papers dealing with agricultural subjects from the sphere of economics, sociology, ecology, social economy, informatics, and management. is a member of subscribes to the principles of the committee on publication Ethics e-access right include one going access to volume year subscribed and temporary access back to 2016 where available. Online access back to volume one issue one is also available via the GOOGLE (<http://www.agriculturejournals.cz/web/agricecon.html>) Back files product.

## OBJECTIVES OF THE STUDY

The main objectives of the present study are:

1. To determine the distribution of the contributions Volume wise.
2. To understand the authorship pattern of the contributions.
3. To examine the authorship pattern of contributions Volume wise.
4. To study the Degree of collaboration year wise.
5. To find out the contribution Institution wise.
6. To analyze Geographical distribution of contributors of articles.
7. To study the types of publication cited volume wise.
8. To identify average citation per contribution in each volume.
9. To find out the average pages per volume & per contribution.

## SCOPE & LIMITATON

The present study is based on 5 volumes, 60 issues of the agricultural economics during 2012-2016. The present study is based on over all 11884 citations appended to 308 articles.

## DATA COLLECTION

Data can be numerically expressed that is quantified quantifiable or objective (Fasibs off and Dely, 1990) the data was collected from 5 volumes, 60 issues of Agricultural Economics during 2012-2016. In all 11884 citations appended to 308 articles were further analyzed.

## DATA ANALYSIS

Analysis of information or data is one of the important part of any study Data analysis is done for the purpose of huge volume of data is reduced into meaning full case report.

Analysis of total 11884 citations appended to 308 articles was done in the journal during 2012 to 2016. It was done by using various parameters like to identify the core journals to rank of cited journal to rank. The cited author to find out geographical distribution of citations to find out the types of cited documents, the data or information was presented in the form of table and graphs to show the result prominently and easily.

The International Journal of Agricultural Economics E-Journal is published Twelve times in a year. It is an online journal published in 2000.

The present study is based on 5 volumes 60 issues of E- Journal Agricultural Economics during 2012-2016.

The present chapter deals with the Scientometrics analysis of different E- journals as per the following parameters.

- 1) Distribution of contributions. (Volume-wise)
- 2) Authorship pattern of contributions.
- 3) Authorship pattern of contributions. (Volume-wise)
- 4) Year- wise Degree of collaboration.

- 5) Distribution of contributions. (institution- wise)
- 6) Geographical distributions of contributions at International level.
- 7) Type of publications cited. (Volume- wise)
- 8) Average citation per contributions in each volume.
- 9) Average pages. (per volume per contributions)

**1. Distribution of contributions (Volume-wise)**

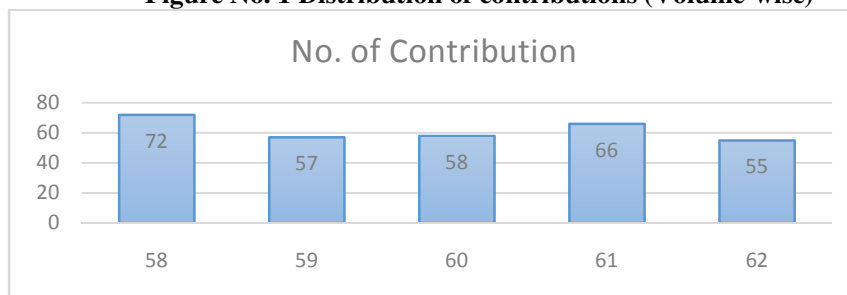
The Volume Wise Distribution of contributions is shown in Table No.1

**Table No. 1 Distribution of contributions (Volume-wise)**

Distribution of Contribution's (Volume-Wise)				
Year	Volume No.	No. of Issue	No. of Contribution	Percentage
2012	58	12	72	23.67%
2013	59	12	57	18.33%
2014	60	12	58	18.67%
2015	61	12	66	21.33%
2016	62	12	55	18.00%
<b>Total</b>		<b>60</b>	<b>308</b>	<b>100.00%</b>

It was observed from Table No.1 and figure No. 1 that the Distribution of contributions (Volume- wise) is shown in Table No. 1 & Figure no. 1 out of the total 308 contributions majority of the contributions i.e. 72 contributions were contributed in 2011 were as minimum contributions i.e. 55 contributions were contributed in 2015.

**Figure No. 1 Distribution of contributions (Volume-wise)**



**2. Authorship pattern of contribution**

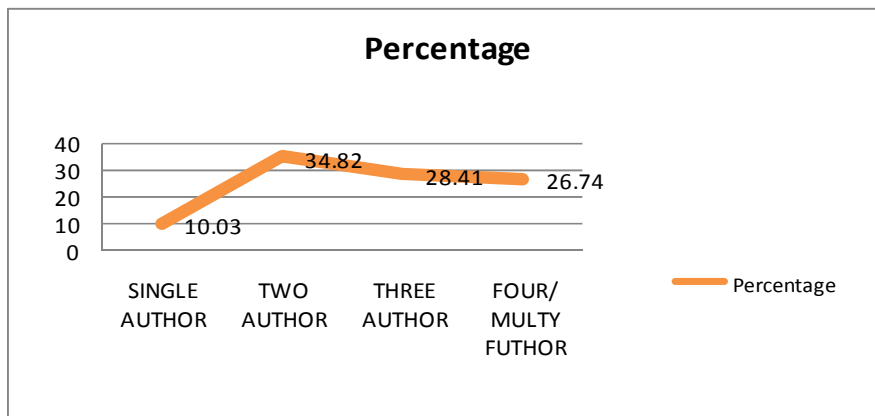
The Authorship pattern of contributions is shown in Table No. 2

**Table No. 2 Authorship pattern of contributions**

Authorship Pattern of Contribution's			
No. of Author	No. of Contribution	No. of Authorship	Percentage
Single Author	72	72	10.03%
Two Author	125	250	34.82%
Three Author	68	204	28.41%
Four/ Multi Author	43	192	26.74%
<b>Total</b>	<b>308</b>	<b>718</b>	<b>100.00%</b>

The distribution of Authorship pattern is given in the Table No.2. The table shows the Multi authorship is predominant then single authors. Table No. 2 & Figure no. 2 indicatives the majority of the contributions are contributed by two author. Where it is seen that **“Majority of the contributions are contributed by Two author”** Table no, 2.

Figure No. 2 Authorship pattern of contributions



3. Authorship pattern of contribution (Volume- wise)

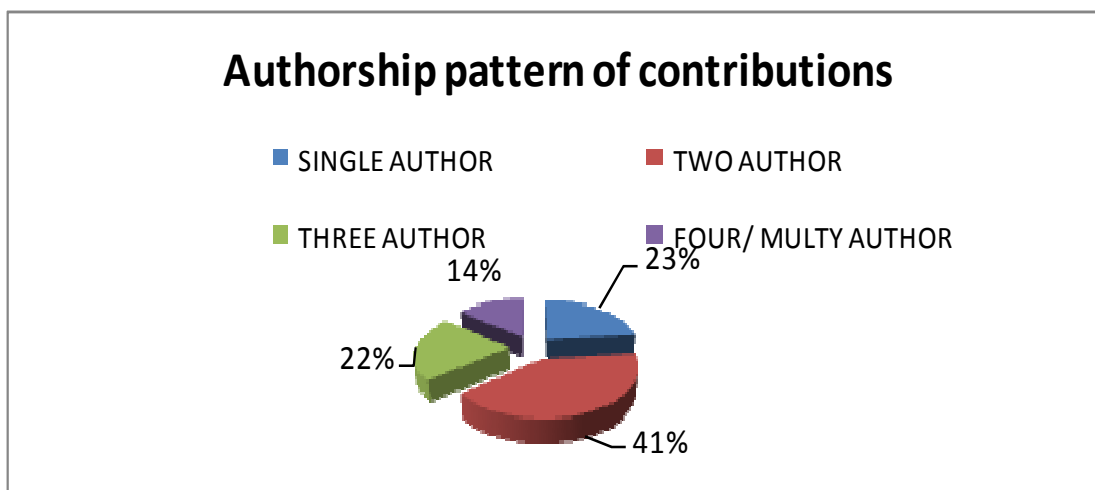
The authorship pattern of contributions is revealed shown in Table No. 3

Table No. 3 Authorship pattern of contribution (Volume- wise)

Authorship Pattern of Contribution's (Volume- Wise)					
Volume No.	Single Author	Two Author	Three Author	Four/ Multi Author	Total Article
58	21	26	13	11	72
59	17	17	15	9	57
60	12	29	10	6	58
61	13	34	12	9	66
62	9	19	18	8	55
<b>Total</b>	<b>72</b>	<b>125</b>	<b>68</b>	<b>43</b>	<b>308</b>

Table No. 3 shows the authorship pattern of contributions (Volume- wise). Distributions of contribution by a single author in volume no.58 indicate that the maximum percentage of single authors. Two author's contributions in volume no. 61 show the highest percentage. Table No. 3 & figure no. 3 indicates the majority of the contributions are contributed by single author. Where it is seen that "Majority of the contributions are contributed by two authors" Table No.3

Figure no. 3 Authorship pattern of contributions



**Degree of collaboration in the international journal of “Information Science & Technology”** the formula given by k. Subramanyam is useful for determining the collaboration in quantitative terms. The study followed the same formula which is mathematically put as;

$$C = \frac{NM}{NM + NS}$$

Where,

C= Degree of collaboration

NM= Number of multi authored papers

NS= Number of single authored papers

In the present study

NM= 43

NS= 72

$\frac{43}{43+72} = \frac{43}{115} = 0.38$

Those, C= 0.38

Thus, the degree of collaboration if the international journal of “Agricultural Economics” is 0.38 which clearly indicates its dominance upon individual contribution. Where **“Majority of the contributions are contributed by two authors”** Table No. 3.2

#### 4. Year wise Degree of Collaboration

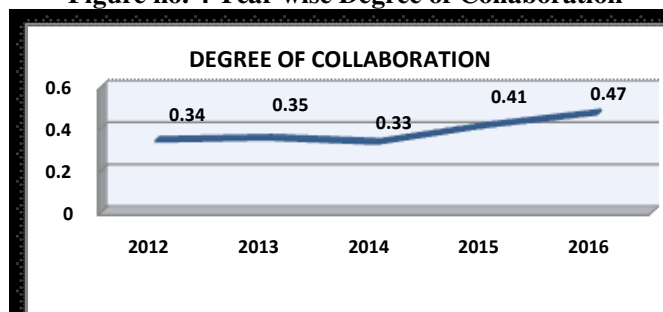
The Degree of collaborations is shown in Table No. 4

**Table No. 4 shows the year is degree of collaboration. (Degree of collaboration Year-wise)**

Degree of Contribution's (Year- Wise)							
Year	Total no. of article	Total no. of author	No. of single authored articles	% of article	No. Of multi authored articles	% of articles	Degree of collaboration
2012	72	164	21	6.82%	11	3.57%	0.34
2013	57	136	17	5.52%	9	2.90%	0.35
2014	58	125	12	3.90%	6	1.95%	0.33
2015	66	160	13	4.22%	9	2.92%	0.41
2016	55	133	9	2.92%	8	2.60%	0.47
Total	308	718	72	23.38%	43	13.96%	0.38 (Mean)

Table No. 4 shows that in the 5 years' period, the two authorship articles are higher and predominant than multi author. The single authored articles are which are highest in the year 2012. It is seen that the single authorship trend in Decreasing

**Figure no. 4 Year wise Degree of Collaboration**



#### 5. Contributors (Institution wise)

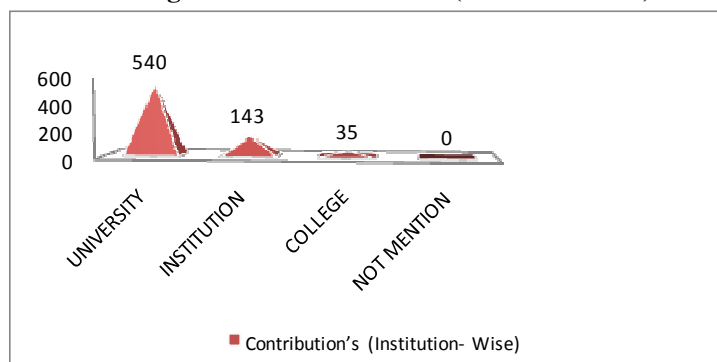
Distribution of institution wise contributors in shown in Table No. 5.

**Table No. 5 shows the Contributions (Institution wise).**

Contribution's (Institution- Wise)						
Volume No.	Year	University	Institution	College	Not Mention	Total
58	2012	122	37	7	0	166
59	2013	101	29	0	7	130
60	2014	91	22	10	0	123
61	2015	128	28	7	0	163
62	2016	98	27	11	0	136
Total		540	143	35	0	718

Table No. 5 shows distribution of institutions volume wise contributions. University wise at the national level followed by colleges. It was seen that university wise contribution in maximum (540) than institution wise (143) and (35) contributions were contributed by the colleges. Table No. 5 shows that the highest number of contributions are of university level. Were it is seen that the **“the maximum numbers of contributions are of university level”** Table No. 5

**Figure no. 5 Contributors (Institution wise)**



**6. Geographical Distribution of contributions at international level**

Geographical distribution of contributions at international level is shown in Table No. 6

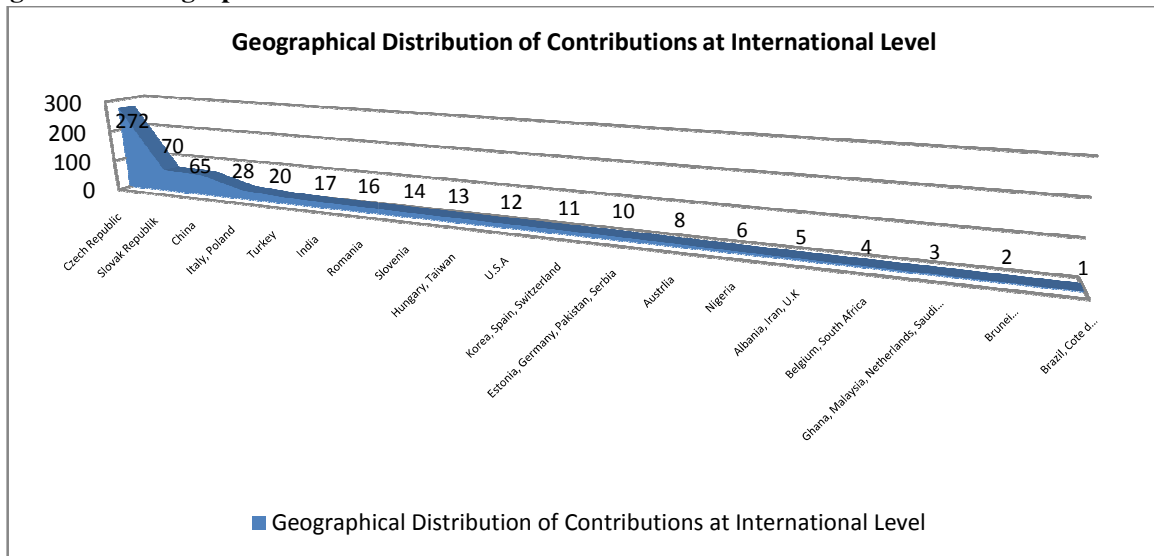
**Table No. 6 Geographical Distribution of contributions at international level**

Geographical Distribution of Contributions at International Level			
Sr. No.	Name of country	No. of Contribution	Percentage
1	Czech Republic	272	37.88
2	Slovak Republic	70	9.75
3	China	65	9.05
4	Italy, Poland	28	3.9
5	Turkey	20	2.79
6	India	17	2.37
7	Romania	16	2.23
8	Slovenia	14	1.95
9	Hungary, Taiwan	13	1.81
10	U.S.A.	12	1.67
11	Korea, Spain, Switzerland	11	1.53
12	Estonia, Germany, Pakistan, Serbia	10	1.39
13	Austria	8	1.11

14	Nigeria	6	0.84
15	Albania, Iran, U.K.	5	0.70
16	Belgium, South Africa	4	0.56
17	Ghana, Malaysia, Netherlands, Saudi Arabia, Bangladesh	3	0.42
18	Brunei Darussalam, Cuba, England, Greece, Macedonia, Montenegro, Russia, South Korea	2	0.28
19	Brazil, Cote d Ivoire, Croatia, France, Ireland, Kuwait, Portugal, Prague, Sri Lanka	1	0.14
Total		<b>718</b>	<b>100</b>

Table No. 6 shows the Geographical distribution of contributions at international level. Table No. 6 indicates that the majority of the contributions were contributed by Czech Republic (37.88%) were as the minimum contributions were contributed by (0.14%) Respectively

**Figure no. 6 Geographical Distribution of contributions at international level**



**7. Types of publication cited (Volume wise)**

Types of publication cited Volume wise is displayed in Table No. 7

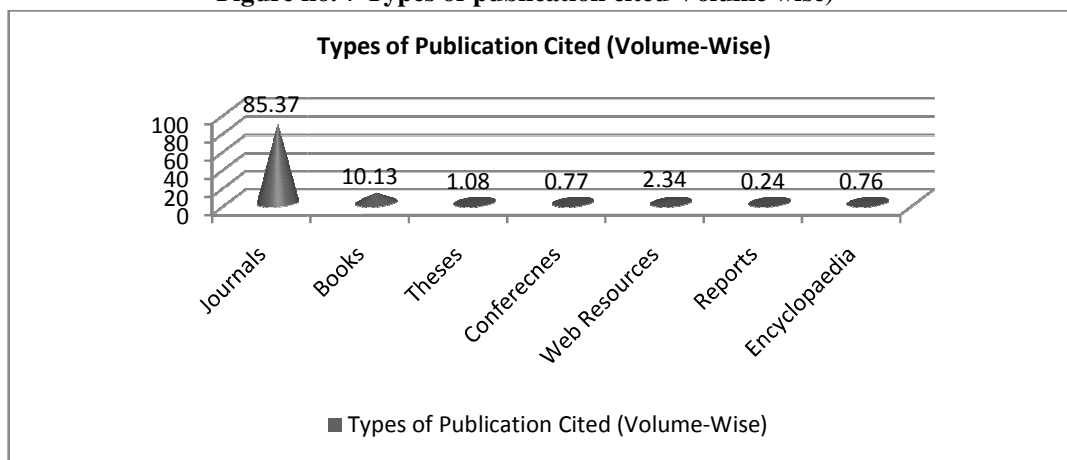
**Table No. 7 Types of publication cited (Volume wise)**

Types of Publication Cited (Volume- Wise)									
Vol. No.	Year	Books	Journals	Theses	Conferences	Web Resources	Reports	Encyclopedia	Total
58	2012	288	2069	36	29	65	7	2	2496
59	2013	341	1986	20	11	54	5	1	2418
60	2014	205	2354	51	36	71	11	5	2733
61	2015	169	1749	09	6	41	2	0	1976
62	2016	201	1987	12	9	47	4	1	2261
Total		<b>1204</b>	<b>10145</b>	<b>128</b>	<b>91</b>	<b>278</b>	<b>29</b>	<b>9</b>	<b>11884</b>
Percentage		<b>10.13%</b>	<b>85.37%</b>	<b>1.08%</b>	<b>0.77%</b>	<b>2.34%</b>	<b>0.24%</b>	<b>0.76%</b>	<b>100</b>

Table No. 7 shows the types of publication cited volume wise of the total 11884 contributions majority (85.37%) of the citations are the Journal citations and minimum (0.24%) are reports citations.

Were it is seen that the “The Agricultural professional make use of the journal articles the most”  
Table No. 7.

**Figure no. 7 Types of publication cited Volume wise)**



**8. Average citation per contribution in each volume**

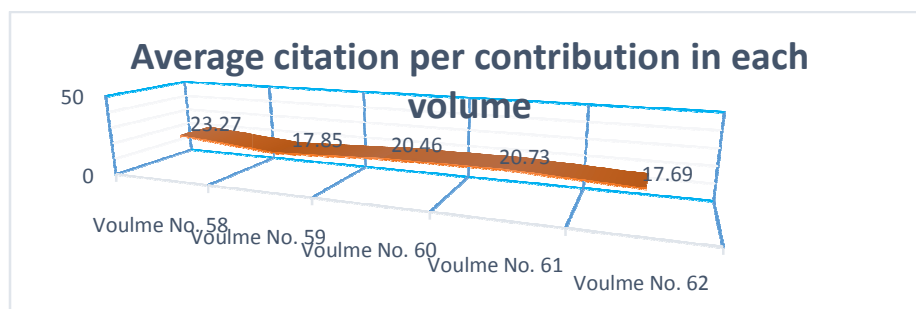
Average citation per contribution in each volume is shown in Table No.8

**Table No. 8 Average citation per contribution in each volume**

Average Citation Per Contribution in Each Volume			
Volume No.	No. Of Contribution	No. Of Citation	Percentage
58	72	2766	23.27
59	57	2121	17.85
60	58	2431	20.46
61	66	2464	20.73
62	55	2102	17.69
TOTAL	308	11884	100.00

Table No. 8 shows the average citation per contribution in each volume, total 308 contributions were contributed. Maximum numbers of citations were contributed by volume no. 58 (23.27%) and the minimum (17.69%) contributions were contributed by volume no. 62.

**Figure No. 8 Average citation per contribution in each volume**





### 9. Average pages (per volume & per contributions)

Average pages (per volume & per contributions) in displayed in Table No. 9

**Table No. 9 Average pages (per volume & per contributions)**

Average Pages (Per Volume & Per Contribution)			
Volume No.	Total Pages	No. Of Article	Percentage
58	608	72	20.59%
59	589	57	19.95%
60	589	58	19.95%
61	581	66	19.67%
62	586	55	19.84%
<b>TOTAL</b>	<b>1390</b>	<b>308</b>	<b>100.00</b>

The Table No. 9 shows the average pages (per volume & per contributions). The maximum pages were covered in volume no. 58 (20.59%) & minimum pages were covered in volume no. 61 (19.67%).

## CONCLUSION

Agricultural Economics Journal has maintained a steady pattern in publishing research results there is a steady increase in number of articles published in each issue of the journal as move from volume 58 to 62. Contribution of articles by researchers from different countries across the globe corroborates the fact that the journal is enjoying fair amount of reputation across the globe. 34.82% articles alone have been contributed in this journal during the period of study as Two author articles. Maximum authors are make the articles help of sources is a Journal 85.37% and Maximum contribution of authors are work done by in University 540.

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