

## Journal of Physical Mathematics: A Scientometric Analysis

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### Abstract:

*Scientific output as measured by publications is closely dependent on the frequency of collaboration among authors. Particular effects on productivity depend upon, the type of link, while with high productivity scientists tends to increase personal productivity, collaboration with low productivity scientists generally decreases it furthermore, the most partite authors seem to collaborate most frequently and authors at all levels of productivity tend to more with highly productive authors than less productive authors. Productivity of scientists, many subsequent studies have confirmed a strong relationship between scientific productivity (Bozeman and Lee, 2003).*

**Keyword:** Cell Science, Therapy, Scientometric, Statistical Analysis, etc

### Information:-

The aim of scientometric is to provide quantitative characterization of scientific activity, scientometric is branch of library and information science. Because of the particular importance of publication in scientific communities, it largely overlaps with bibliometrics, which is quantitative analysis of media in any written form. In addition to disciplines of measurement, scientometric has strong connection with information and library science of science as well as science policy. The 1970s saw the development of scientometric as an operational activity. Amongst the founding fathers of the discipline were de Solla Price. (1963), Garfield (1955) and Narin (1976) in the US. Nalimov & Mulczenko (1969) in Russia and Braun & Bujdosó (1975) in Hungary. Applying bibliometric methods to their own field, scientometrician confirm that their own domain, standing evolved as heterogeneous field both in topics and practices (Schoepflin & Glanzel, 2001) and intellectual repertoire (Peritz & Bar-Ilan, 2002)

A Scientometric analysis: Journal of Physical Mathematics. Scientometric analysis is a branch of Bibliometric. It is an important research tools for understanding of the subject it aims at measuring the utility of documents and relationship between documents and fields. Journal of Physical Mathematics is quarterly published in the year. The journal was first published bimonthly beginning in January 1960; it became a monthly publication in 1963. The current editor is Jan Philip Solovej from University of Copenhagen. **ISSN: 2090-0902** (Online). The Present study is based on 05 Volumes, 20 issues of Journal of Physical Mathematics during 2014-2018.

### Objectives of the studies

The main objective of the present studies issue follows -

- 1) To Find Distribution of contributions (volume wise).
- 2) To Find Authorship Pattern of Contributions
- 3) To Find Authorship Pattern of Contributions (ISSUE wise)

- 4) To Find Contribution (Institution –wise)
- 5) To Find The Geographical distribution of contribution International level is show.
- 6) To Find Average Citation per contribution in each volume

### **Distribution of contributions (volume wise) .**

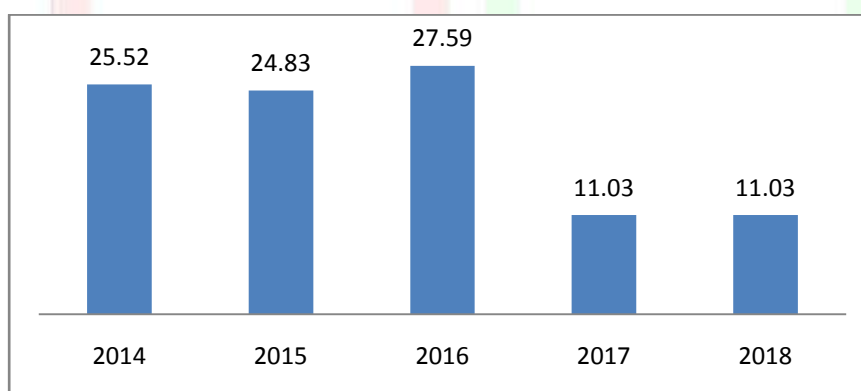
The distribution of contributions is shown in table No.1

**Table No.1 Distribution of Contributions**

Distribution of Contribution's (Volume-Wise)				
Year	Volume No.	No. of Issue	No. of Contribution	Percentage
2014	5	4	37	25.52
2015	6	4	36	24.83
2016	7	4	40	27.59
2017	8	4	16	11.03
2018	9	4	16	11.03
Total		20	145	100.00

Table No. 1 & Figure No. 1 depicts the details regarding the number of Articles published during 2014-2018 which was 145 and the year wise analysis of the contribution shows that average number of per year contribution is maximum i.e. 40 (27.59%) in the year 2016.

**Figure no. 1 Distribution of Contributions**



### Authorship Pattern of Contributions

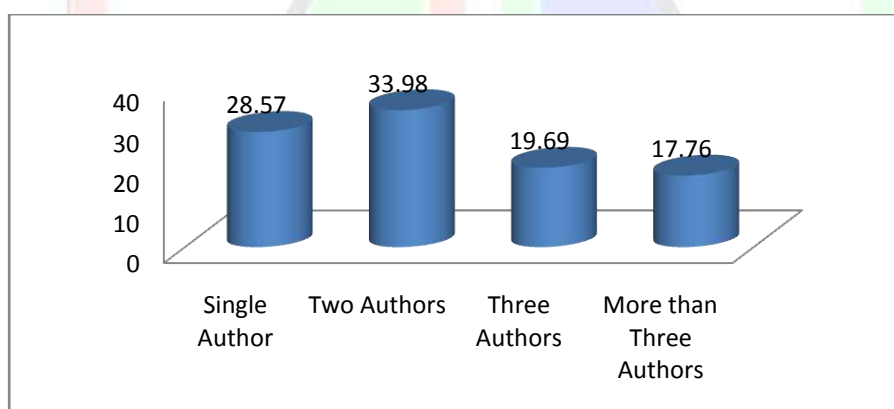
The authorship pattern of contributions is for shown in Table No.2.

**Table No.2 Authorship Pattern of Contribution**

Authorship Pattern of Contribution's			
No. of Author	No. of Contribution	No. of Authorship	Percentage
Single Author	74	74	28.57
Two Authors	44	88	33.98
Three Authors	17	51	19.69
More than Three Authors	10	46	17.76
<b>Total</b>	<b>145</b>	<b>259</b>	<b>100.00</b>

Table No. 2 & Figure No. 2 Indicates that the details about the authorship pattern 74 articles (28.57%) out of 145 articles have been contributed by Single author which is followed by More than Three Authors 10 (17.76%), 44 articles (33.98%) by two authors and 17 articles (19.69%) by three authors. Where “Hypothesis No. 1 is valid **“Majority of the contributions are contributed by Single Author”**”.

**Figure No.2 Authorship Pattern of Contribution**



### Authorship Pattern of Contributions (ISSUE wise)

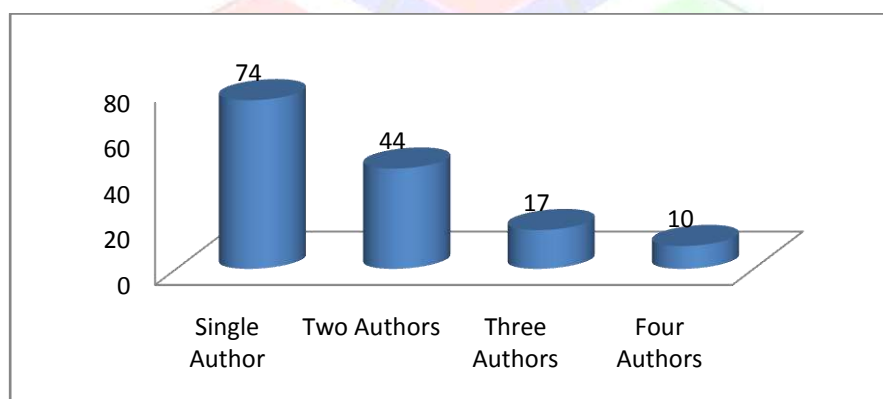
The authorship pattern of contributions is revealed in table in 4 given below.

**Table No.3 Authorship Pattern of Contribution (ISSUE-wise)**

Authorship Pattern of Contribution's (Volume-Wise)					
Volume No.	Single Author	Two Authors	Three Authors	More than Three Authors	Total Article
5	37	0	0	0	37
6	18	12	4	2	36
7	15	18	3	4	40
8	2	8	4	2	16
9	2	6	6	2	16
<b>Total</b>	<b>74</b>	<b>44</b>	<b>17</b>	<b>10</b>	<b>145</b>

Table No.3 and Fig No. 3 Shows the authorship pattern of contributions volume-wise regarding contributions by a single author records the highest contributions (74), However the two author contributions, (44) shows the three author contributions (17), the four author contributions (10), reflects the maximum percentage.

**Figure No.3 Authorship Pattern of Contribution (ISSUE-wise)**



#### Contribution (Institution –wise)

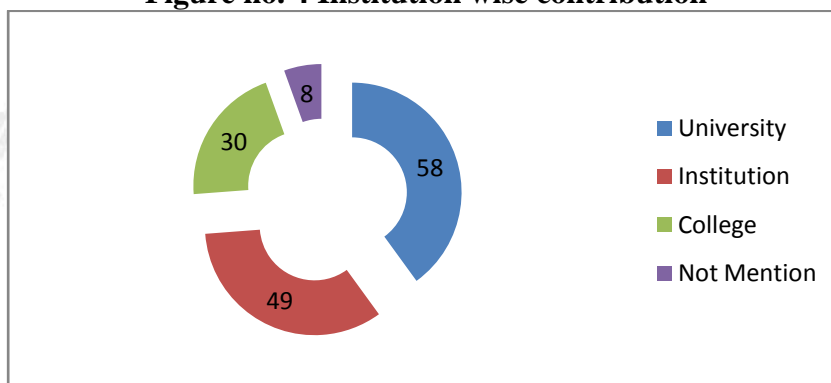
Contribution is displayed in the table no.4.

**Table No.4 Institution wise contribution**

Contribution's (Institution-Wise)						
Volume No.	Year	University	Institution	College	Not Mention	Total
5	2014	17	12	5	3	37
6	2015	18	10	6	2	36
7	2016	12	20	5	3	40
8	2017	8	3	5	0	16
9	2018	3	4	9	0	16
<b>Total</b>		<b>58</b>	<b>49</b>	<b>30</b>	<b>8</b>	<b>145</b>

Table No.4 depicts the geographical distribution of contributions, University wise at the national level followed by institutions and colleges. It is inferred from the above table that university – wise contribution maximum is 58 contributions were 49 contribution by Institution and College contribution was 30 contributions. **Hypothesis No.2 hence i.e. maximum number of contribution is at university level.**

**Figure no. 4 Institution wise contribution**



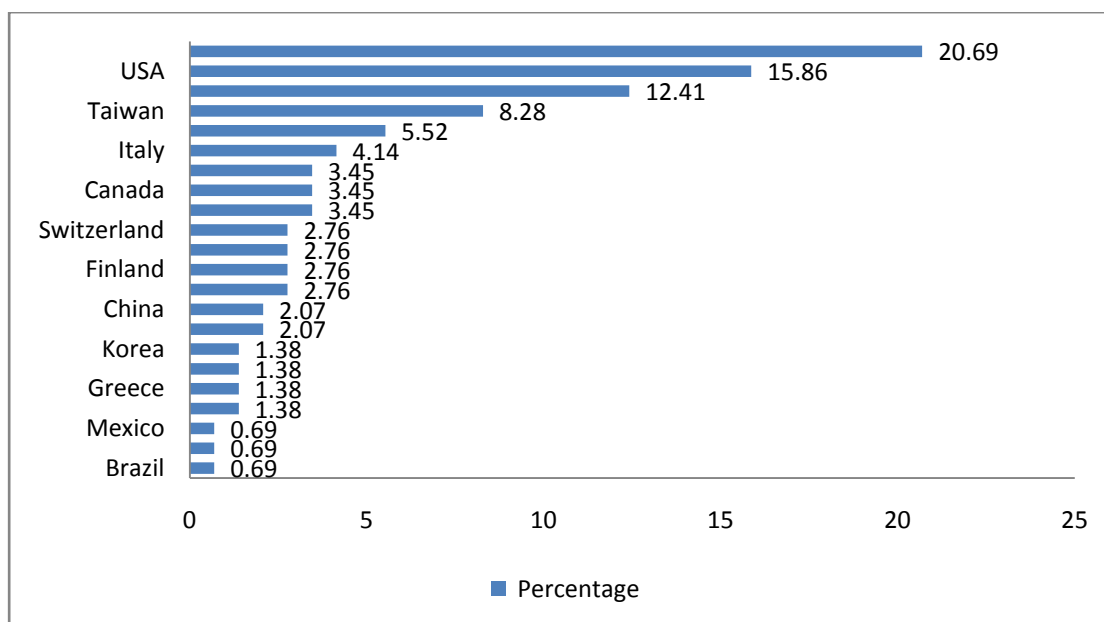
**The Geographical distribution of contribution International level**

**Table No.5 Geographical distribution of contribution in International level**

Geographical Distribution of Contribution's At International Level			
Sr. No.	Name of Country	No. of Contribution	Percentage
1	UK	30	20.69
2	USA	23	15.86
3	Australia	18	12.41
4	Taiwan	12	8.28
5	Turkey	8	5.52
6	Italy	6	4.14
7	Bolivia	5	3.45
8	Canada	5	3.45
9	Sweden	5	3.45
10	Chile	4	2.76
11	Finland	4	2.76
12	Ireland	4	2.76
13	Switzerland	4	2.76
14	Austria	3	2.07
15	China	3	2.07
16	Germany	2	1.38
17	Greece	2	1.38
18	Hong Kong	2	1.38
19	Korea	2	1.38
20	Brazil	1	0.69
21	Denmark	1	0.69
22	Mexico	1	0.69
		145	100%

Table No.5 shows the geographical distributions of contributions at International level UK is Maximum percentage 30 (20.69%), and minimum Percentage of Brazil, Denmark and Mexico is 1 (0.69%).

**Figure no. 5 Geographical distribution of contribution in International level**



#### Average Pages (Per Volume & Per Contribution)

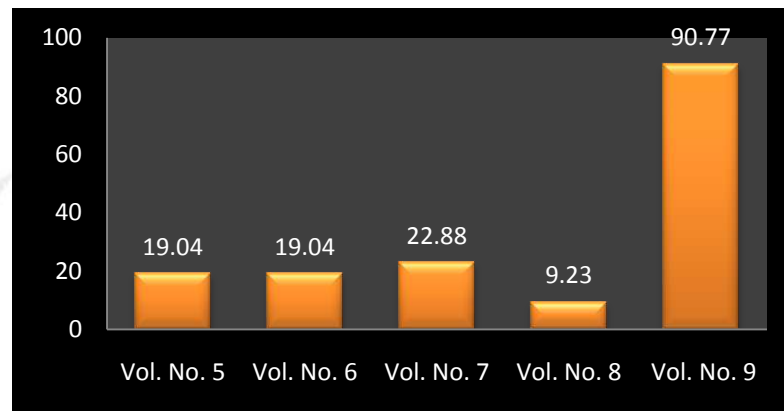
The average Pages per Volume & per Contribution is showed in

**Table No.6 Average Pages (Per Volume & Per Contribution)**

Average Pages (Per Volume & Per Contribution)			
Volume No.	No. of Contribution	Total Pages	Average
5	37	258	19.04
6	36	258	19.04
7	40	310	22.88
8	16	125	9.23
9	16	1230	90.77
Total	145	1355	100.00

Table No. 7 & Fig No.7 it can be observed for average pages per contribution in each volume. Volume no. (5) (19.04%) contributed 258 pages. contributions of which highest numbers of pages appeared in Vol. no.9 (90.77%) contribution of which minimum number of citation appeared in Vol.no.8 (9.23%).

**Figure no. 6 Average Pages (Per Volume & Per Contribution)**



### Conclusion:

Bibliometrics is relatively new subject of information. It help to evaluate information centers by the quantitative analyzed information. It deals with the mathematical and statistical analysis. Journal of Physical Mathematics is quarterly in the year. The current editor is Jan Philip Solovej from University of Copenhagen. **ISSN: 2090-0902** (Online).A Scientometric analysis is the technique these online downloaded journals are presented in a manner corresponding to objectives of the study.

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