

# A Citationist Perspective on the Work of Bharathidasan University Researchers: A Historiographic Citation Mapping

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## Abstract

We analyze citation frequencies of Bharathidasan University for Web of Science Database in the field of Science in India over 27 years. Integrating and cleaning data from Web of Science obtain the citation data. Our analysis considers different comparative metrics per publication venue, in particular the Global Citation Score and Local Citation Score etc. We also determine the most cited papers, authors, author institutions etc.

**Keywords:** Citation; Analysis; Research; Perspective; Mapping.

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## Introduction

Citation analysis is used to determine the growing number of scientific research publications makes it difficult for researchers to keep up with the state of the art even in their own domain. Since most research publications are available electronically, natural language processing tools might provide useful support. Web of Science (SCI) was first promulgated in Science in 1955, as an up-to-date tool to facilitate the dissemination and retrieval of scientific literature. Its practical realization was possible thanks to the already-existing information service, Current Contents. Citation frequency is a measure of research activity, or of communication about research activity. In itself, the number of citations of a man's work is no measure of significance. Like one scale on a nomogram, it must be used along with other scales to obtain anything useful or meaningful, particularly if the object of the evaluation is in any way qualitative. Citation frequency reveals the impact of a particular publication of scientists.

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## Scopes and Methodology

The present study attempts to find out the publication pattern of researchers of Bharathidasan University. The study is based on the references and aims to analyse quantitatively the growth and development of Science in terms of publication output as reflected in Web of Science database during years, 1981-2007. The Global Citation Score and Local Citation Score are examined to identify the pattern of research contribution researchers on Science. The area-wise research performance is analysed to identify hot area of research. The study is mainly exploratory in nature in identifying research output of Bharathidasan University researchers.

### *Objectives of the Study*

The main objective of the study is to present the growth of literature and make the quantitative assessment of status of Bharathidasan University researchers on Science by analyzing the various features. The specific objectives are:

- To measure the year-wise growth of publications in terms of input of records
- To measure the Document Type-wise contributions with GCS and LCS

- To measure the authorship pattern GCS and LCS in the publications
- To measure the Source of publications with GCS and LCS
- To measure the Institution with subdivision of GCS and LCS

### Analysis and Discussion

#### *Chronological Histcite Display of Papers Citing BU Researchers*

Table 1 provides a view of the opening page showing how the information is displayed in HistCite. This database, which we will call for brevity includes 1400 of Bharathidasan University papers. From these data, one can

obtain a global view of Bharathidasan University researchers work and its impact over a 27-year period. For each published paper, we can hotlink to both local and global frequencies of citation (GCS and LCS). Note that there were 1152 authors involved in articles, which appeared in 348 different journals, and one sees the most-cited papers in the collection.

Grand Totals: LCS 1763, GCS 7464, Collection span: 1981 - 2007

Records: 1400, Authors: 1152, Journals: 348, Cited References: 21901, Words: 4217

Yearly output | Document Type  
| Language | Institution | Institution with Subdivision | Country

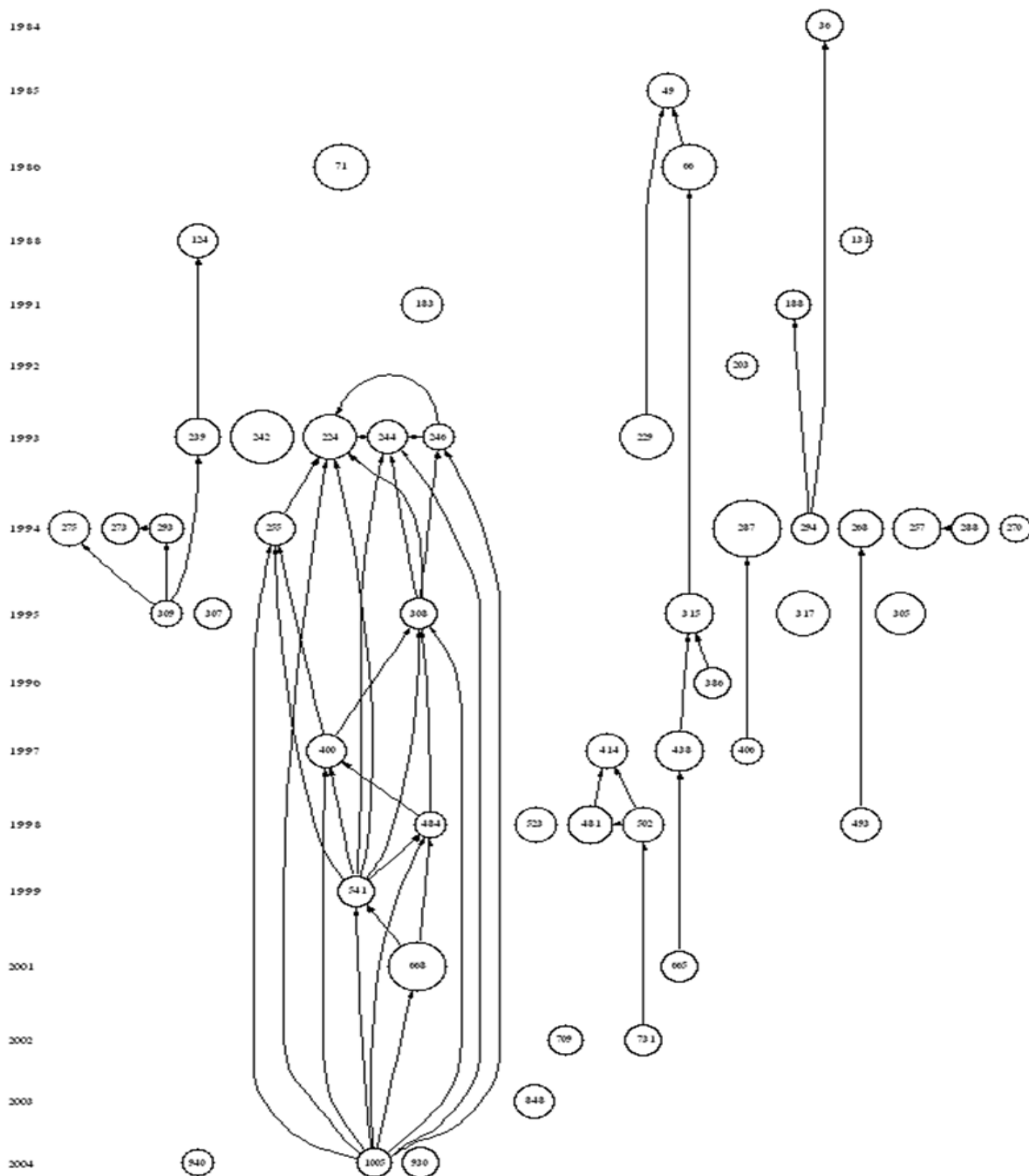
**Table 1: Showing Opening Page Sorted by GCS**

#	LCR	CR	Date/ Author/ Journal	LCS	GCS
1	0	14	287 Radha R, Lakshmanan M , Singularity Analysis And Localized Coherent Structures In (2+1)-Dimensional Generalized Korteweg-De Vries Equations, Journal Of Mathematical Physics. 1994 Sep; 35 (9): 4746-4756	7	110
2	0	13	242 Murali K, Lakshmanan M , Transmission Of Signals By Synchronization In A Chaotic Vanderpol-Duffing Oscillator, Physical Review E. 1993 Sep; 48 (3): R1624-R1626	0	95
3	2	17	668 Gromiha MM, Selvaraj S , Comparison between long-range interactions and contact order in determining the folding rate of two-state proteins: Application of long-range order to folding rate prediction, JOURNAL OF MOLECULAR BIOLOGY. 2001 JUN 29; 310 (1): 27-32	9	82
4	0	27	71 Nakamura K, Lakshmanan M , Complete-Integrability In A Quantum Description Of Chaotic Systems Physical Review Letters. 1986 Oct 6; 57 (14): 1661-1664	3	76
5	1	17	66 Sahadevan R, Tamizhmani Km, Lakshmanan M , Painleve Analysis And Integrability Of Coupled Nonlinear Schrodinger-Equations, Journal Of Physics A-Mathematical And General. 1986 Jul 11; 19 (10): 1783-1791	7	74

Nodes: 50, Links: 48, GCS, top 50; Min: 25, Max: 110 (GCS scaled)

#	Node	Author, Year, Journal	Lcs	Gcs
1.	36	Lakshmanan M, 1984, Phys Rev Lett, V53, P2497	5	35
2.	49	Lakshmanan M, 1985, Phys Rev A, V31, P861	13	45
3.	66	Sahadevan R, 1986, J Phys-A-Math Gen, V19, P1783	7	74
4.	71	Nakamura K, 1986, Phys Rev Lett, V57, P1661	3	76
5.	124	Rajasekar S, 1988, Physica D, V32, P146	6	38
6.	131	Bhaskaran R, 1988, Int J Peptide Prot Res, V32, P241	0	25
7.	183	Ravindran T, 1991, J Org Chem, V56, P4833	23	44
8.	188	Porsezian K, 1991, J Math Phys-Ny, V32, P2923	9	32
9.	203	Porsezian K, 1992, J Math Phys-Ny, V33, P1807	17	26
10.	224	Ponnuswamy Pk, 1993, Prog Biophys Mol Biol, V59, P57	17	70
11.	229	Lakshmanan M, 1993, Phys Rep-Rev Sect Phys Lett, V224, P1	8	66
12.	239	Rajasekar S, 1993, Physica D, V67, P282	7	50
13.	242	Murali K, 1993, Phys Rev E, V48, Pr1624	0	95
14.	244	Ponnuswamy Pk, 1993, Int J Peptide Prot Res, V42, P326	10	40
15.	246	Gromiha Mm, 1993, Int J Peptide Prot Res, V42, P420	6	25
16.	255	Ponnuswamy Pk, 1994, J Theor Biol, V166, P63	14	42
17.	257	Bhaskaran R, 1994, J Mol Biol, V235, P1291	1	58
18.	268	Uma R, 1994, J Chem Soc Dalton Trans, P1219	6	49
19.	270	Manoharan M, 1994, Chem Phys Lett, V222, P95	1	28
20.	273	Murali K, 1994, Ieee Trans Circuit Syst-I, V41, P462	10	37
21.	275	Murali K, 1994, Phys Rev E, V49, P4882	5	46
22.	287	Radha R, 1994, J Math Phys-Ny, V35, P4746	7	110
23.	288	Bhaskaran R, 1994, J Biol Chem, V269, P23500	0	33
24.	293	Murali K, 1994, Int J Bifurcation Chaos, V4, P1511	10	29
25.	294	Daniel M, 1994, J Math Phys-Ny, V35, P6498	15	34
26.	305	Radha R, 1995, Phys Lett A, V197, P7	4	64
27.	307	Palaniandavar M, 1995, J Chem Soc Dalton Trans, P455	14	36
28.	308	Gromiha Mm, 1995, Int J Peptide Prot Res, V45, P225	11	34
29.	309	Murali K, 1995, Int J Bifurcation Chaos, V5, P563	3	25
30.	315	Radhakrishnan R, 1995, J Phys-A-Math Gen, V28, P2683	9	54
31.	317	Lakshmi S, 1995, J Photochem Photobiol A-Chem, V88, P163	4	65
32.	386	Radhakrishnan R, 1996, Phys Rev E, V54, P2949	5	33
33.	400	Gromiha Mm, 1997, J Biol Phys, V23, P151	13	42
34.	406	Radha R, 1997, Chaos Soliton Fractal, V8, P17	5	27
35.	414	Mahadevan S, 1997, Inorg Chim Acta, V254, P291	7	43
36.	438	Radhakrishnan R, 1997, Phys Rev E, V56, P2213	16	58
37.	481	Mahadevan S, 1998, Inorg Chem, V37, P693	8	52
38.	484	Gromiha Mm, 1998, Protein Eng, V11, P249	10	27
39.	493	Viswanathan R, 1998, Inorg Chem, V37, P2943	7	40
40.	502	Mahadevan S, 1998, Inorg Chem, V37, P3927	10	46
41.	523	Vaidyanathan M, 1998, Inorg Chem, V37, P6418	9	44
42.	541	Gromiha Mm, 1999, Biophys Chem, V77, P49	9	37
43.	665	Kanna T, 2001, Phys Rev Lett, V86, P5043	7	36

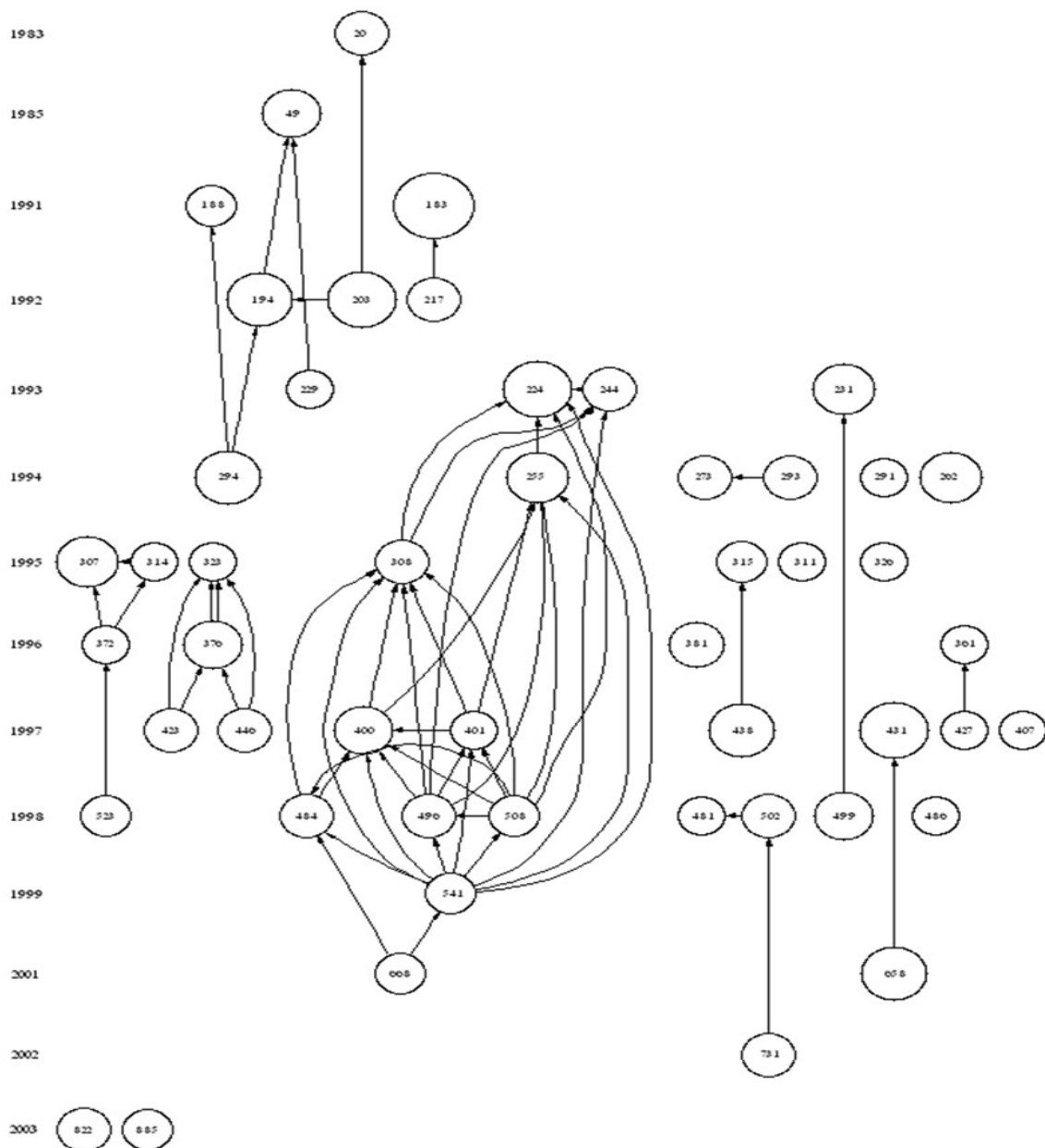
#	Node	Author, Year, Journal	Lcs	Gcs
44.	668	Gromiha Mm, 2001, J Mol Biol, V310, P27	9	82
45.	709	Thangaraju B, 2002, Thin Solid Films, V402, P71	8	32
46.	731	Chikira M, 2002, J Inorg Biochem, V89, P163	10	33
47.	848	Muruganandam P, 2003, J Phys-B-At Mol Opt Phys, V36, P2501	1	39
48.	930	Maheswari Pu, 2004, J Inorg Biochem, V98, P219	5	33
49.	940	Gromiha Mm, 2004, J Mol Biol, V337, P285	1	28
50.	1005	Gromiha Mm, 2004, Prog Biophys Mol Biol, V86, P235	2	29



Nodes: 50, Links: 58, LCS, top 50; Min: 8, Max: 23 (LCS scaled)

#	Node	Author, Year, Journal	Lcs	Gcs
1.	20	Daniel M, 1983, Physica A, V120, P125	11	17
2.	49	Lakshmanan M, 1985, Phys Rev A, V31, P861	13	45
3.	183	Ravindran T, 1991, J Org Chem, V56, P4833	23	44
4.	188	Porsezian K, 1991, J Math Phys-Ny, V32, P2923	9	32
5.	194	Daniel M, 1992, J Math Phys-Ny, V33, P771	15	20
6.	203	Porsezian K, 1992, J Math Phys-Ny, V33, P1807	17	26
7.	217	Senthilkumar Up, 1992, J Org Chem, V57, P6006	10	16
8.	224	Ponnuswamy Pk, 1993, Prog Biophys Mol Biol, V59, P57	17	70
9.	229	Lakshmanan M, 1993, Phys Rep-Rev Sect Phys Lett, V224, P1	8	66
10.	231	Jayakumar J, 1993, Appl Math Comput, V55, P31	14	19
11.	244	Ponnuswamy Pk, 1993, Int J Peptide Prot Res, V42, P326	10	40
12.	255	Ponnuswamy Pk, 1994, J Theor Biol, V166, P63	14	42
13.	262	Jayakumar J, 1994, Comput Math Appl, V27, P83	14	16
14.	273	Murali K, 1994, Ieee Trans Circuit Syst-I, V41, P462	10	37
15.	291	Kalyanasundari M, 1994, Acta Crystallogr C-Cryst Str, V50, P1738	8	16
16.	293	Murali K, 1994, Int J Bifurcation Chaos, V4, P1511	10	29
17.	294	Daniel M, 1994, J Math Phys-Ny, V35, P6498	15	34
18.	307	Palaniandavar M, 1995, J Chem Soc Dalton Trans, P455	14	36
19.	308	Gromiha Mm, 1995, Int J Peptide Prot Res, V45, P225	11	34
20.	311	Kalyanasundari M, 1995, J Organometal Chem, V491, P103	8	25
21.	314	Viswanathan R, 1995, J Chem Soc Dalton Trans, P1259	8	20
22.	315	Radhakrishnan R, 1995, J Phys-A-Math Gen, V28, P2683	9	54
23.	323	Manoharan M, 1995, J Fluorine Chem, V73, P171	8	9
24.	326	Ramasamy Sm, 1995, Int J Remote Sens, V16, P2375	8	16
25.	361	Radha R, 1996, J Phys-A-Math Gen, V29, P1551	8	18
26.	372	Viswanathan R, 1996, J Chem Soc Dalton Trans, P2519	8	20
27.	376	Manoharan M, 1996, J Chem Soc Perkin Trans 2, P1423	13	21
28.	381	Balasubramanian T, 1996, Acta Crystallogr C-Cryst Str, V52, P2072	12	22
29.	400	Gromiha Mm, 1997, J Biol Phys, V23, P151	13	42
30.	401	Gromiha Mm, 1997, J Biol Phys, V23, P209	8	14
31.	407	Arumugam Mn, 1997, Indian J Chem Sect A, V36, P84	8	13
32.	423	Manoharan M, 1997, Theochem-J Mol Struct, V394, P41	10	3
33.	427	Radha R, 1997, J Phys-A-Math Gen, V30, P3229	8	18
34.	431	Murugesan S, 1997, Acta Crystallogr C-Cryst Str, V53, P763	17	17
35.	438	Radhakrishnan R, 1997, Phys Rev E, V56, P2213	16	58
36.	446	Manoharan M, 1997, J Chem Soc Perkin Trans 2, P1799	10	16
37.	481	Mahadevan S, 1998, Inorg Chem, V37, P693	8	52
38.	484	Gromiha Mm, 1998, Protein Eng, V11, P249	10	27
39.	486	Kannan S, 1998, Curr Sci, V74, P689	8	10
40.	496	Selvaraj S, 1998, J Protein Chem, V17, P407	10	21

#	Node	Author, Year, Journal	Lcs	Gcs
41.	499	Natesan S, 1998, Appl Math Comput, V93, P259	13	19
42.	502	Mahadevan S, 1998, Inorg Chem, V37, P3927	10	46
43.	508	Selvaraj S, 1998, J Protein Chem, V17, P691	9	18
44.	523	Vaidyanathan M, 1998, Inorg Chem, V37, P6418	9	44
45.	541	Gromiha Mm, 1999, Biophys Chem, V77, P49	9	37
46.	658	Prabakaran P, 2001, Acta Crystallogr C-Cryst Str, V57, P459	16	18
47.	668	Gromiha Mm, 2001, J Mol Biol, V310, P27	9	82
48.	731	Chikira M, 2002, J Inorg Biochem, V89, P163	10	33
49.	822	Elangovan E, 2003, J Optoelectron Adv Mater, V5, P45	10	18
50.	885	Ramesh R, 2003, J Inorg Biochem, V96, P457	9	19



**Table 2: Showing Author ranked by number of Publications**

	Author	Recs	%	TLCS	TLCS/t	TGCS	TGCS/t	TLCR
1	Lakshmanan M	155	11.1	375	33.39	2023	170.12	288
2	Parthasarathi V	111	7.9	29	2.91	261	50.20	32
3	Muthiah PT	86	6.1	123	16.21	455	75.38	116
4	Palaniandavar M	75	5.4	181	26.00	865	120.94	179
5	Panchanatheswaran K	63	4.5	43	7.41	148	22.43	50
6	Jeyaraman R	61	4.4	119	9.51	209	17.08	104
7	Nallu M	57	4.1	23	2.44	300	65.08	26
8	Venuvanalingam P	53	3.8	106	13.66	296	34.92	101
9	Dhanuskodi S	49	3.5	68	13.73	184	35.83	67
10	Thamotharan S	47	3.4	0	0.00	113	26.27	6
11	Ganapathi A	46	3.3	32	4.63	124	17.74	28
12	Daniel M	44	3.1	108	8.20	227	18.20	133
13	Akbarsha MA	42	3.0	66	10.83	145	20.31	76
14	Pillay MK	40	2.9	47	2.97	94	6.18	29
15	Ramanujam N	37	2.6	92	10.77	153	20.98	97
16	Vivekanandan M	37	2.6	16	0.75	104	12.15	11
17	Bocelli G	35	2.5	35	5.39	178	31.68	48
18	Ramamurthi K	35	2.5	26	4.70	96	18.66	42
19	Gromiha MM	34	2.4	140	14.71	585	76.65	167
20	Krishnamurthy KV	32	2.3	18	1.61	81	7.56	13

*Local Citation Score*

For each published paper, we can hotlink to both local and global frequencies of citation such as LCS.

Nodes: 50, Links: 58, LCS, top 50; Min: 8, Max: 23 (LCS scaled)

Nodes: 50, Links: 48, GCS, top 50; Min: 25, Max: 110 (GCS scaled)

*Author Ranked By Number of Publications*

By clicking on the all-author hotlink, we find the most-published author on science in Bharathidasan University (see Table 2). Hotlinks also permit display of the authors by Global or Local Citation Score. Thus the most-cited authors are distinguished from the most-published ones. The individual citation frequencies for these papers are totaled.

*Source-wise Distribution of Research Output*

Table 3 gives citation rates of the papers of citing set published in different Sources. Understandably, the highest number of papers is published in Acta Crystallographica Section E-Structure Reports Online. Sources and growth of publications is given below in the table.

*Top 10 Cited Reference sorted by Records*

Table we show the papers sorted by global cited Reference frequency that is cited. In this way, one sees that the group of citing papers includes a large number of highly cited papers we would describe as citation classics. The sum of the times cited is 7468, Average Citations per time is 5.32 and h-index is 34.

**Table 3: Showing Source wise Distribution of Research Output**

#	Journal	Recs	%	TLCS	TGCS	TLCR
1	ACTA crystallographica section e-structure reports online	181	12.9	0	580	86
2	Current Science	77	5.5	52	145	41
3	ACTA Crystallographica Section C-Crystal Structure Communications	75	5.4	94	294	39
4	Physics Letters A	34	2.4	49	236	79
5	Indian Journal of Chemistry Section B-Org. Chemistry Including Medicinal Chemistry	32	2.3	37	93	66
6	Journal Of Physics A-Mathematical And General	28	2.0	53	296	49
7	Physical Review E	25	1.8	53	373	43
8	Journal of Mathematical Physics	19	1.4	85	358	47
9	Journal Of The Indian Chemical Society	19	1.4	11	24	17
10	Spectrochimica Acta Part A-Molecular And Biomolecular Spectroscopy	19	1.4	22	59	41
11	applied mathematics and computation	16	1.1	50	90	47
12	Crystal Research And Technology	15	1.1	21	56	10
13	International Journal Of Bifurcation And Chaos	15	1.1	20	106	30
14	Indian Journal Of Chemistry Section A-Inorganic Bio-Inorganic Physical Theoretical & Analytical Chemistry	14	1.0	32	74	16
15	Journal Of Crystal Growth	14	1.0	20	58	21
16	Journal Of Inorganic Biochemistry	14	1.0	40	161	44
17	Polyhedron	14	1.0	12	46	32
18	Inorganica Chimica Acta	13	0.9	29	135	32
19	Journal Of Environmental Biology	13	0.9	4	22	7
20	Chaos Solitons & Fractals	12	0.9	21	97	27
21	Journal Of The Chemical Society-Dalton Transactions	12	0.9	51	234	12
22	Biologia Plantarum	11	0.8	4	14	3
23	Inorganic Chemistry	11	0.8	50	240	40
24	Journal Of Morphology	11	0.8	25	28	18
25	Abstracts Of Papers Of The American Chemical Society	10	0.7	0	0	0



**Table 4: Showing top 10 Cited Reference sorted by Records**

	Author / Year / Journal	Recs	%
1	Bernstein J, 1995, Angew Chem Int Edit, V34, P1555	127	9.1
2	Spek Al, 2003, J Appl Crystallogr 1, V36, P7	123	8.8
3	Sheldrick Gm, 1997, Shelxs97 Shelxl97	103	7.4
4	Sheldrick Gm, 1997, Shelxl97	98	7.0
5	Farrugia Lj, 1997, J Appl Crystallogr, V30, P565	80	5.7
6	Otwinowski Z, 1997, Method Enzymol, V276, P307	72	5.1
7	North Act, 1968, Acta Crystallogr A, V24, P351	64	4.6
8	Fair Ck, 1990, Molen	57	4.1
9	Etter Mc, 1990, Accounts Chem Res, V23, P120	52	3.7
10	Murashige T, 1962, Physiol Plantarum, V15, P473	51	3.6

**Table 5: Showing year-wise Distribution of Citation Scores**

	Publication Year	Recs	TLCS	TGCS		Publication Year	Recs	TLCS	TGCS
1	1997	65	165	540	15	1991	21	53	155
2	1998	63	156	588	16	2006	143	35	147
3	1994	46	134	681	17	1986	29	32	253
4	1995	42	131	511	18	1983	19	30	67
5	2003	122	108	656	19	1985	13	27	123
6	1996	57	104	357	20	1990	19	22	141
7	2001	65	104	441	21	1984	13	21	109
8	2004	117	101	487	22	1988	28	18	108
9	1992	32	93	290	23	1987	26	14	74
10	2002	89	93	419	24	1989	16	10	55
11	1993	28	91	468	25	2007	97	7	16
12	1999	54	82	225	26	1982	6	5	12
13	2000	55	66	304	27	1981	1	0	0
14	2005	134	61	237					

**Table 6: Showing Bibliometric Summary of by Bharathidasan University Publications**

	Document Type	Recs	%	TLCS	TGCS		Document Type	Recs	%	TLCS	TGCS
1	Article	1249	89.2	1643	6700	5	Meeting Abstract	15	1.1	0	0
2	Note	65	4.6	56	300	6	Editorial Material	5	0.4	1	8
3	Letter	40	2.9	26	165	7	Correction	3	0.2	0	0
4	Review	22	1.6	37	291	8	Correction, Addition	1	0.1	0	0

**Table 7: Showing Institutions & Department wise Distribution of Research Output**

#	Institution with Subdivision	Recs	%	TLCS	TGCS
1	Bharathidasan University, Dept Physics	<u>380</u>	27.1	591	2802
2	Bharathidasan University, Dept Chemistry	<u>372</u>	26.6	563	2240
3	Bharathidasan University, School of Chemistry	<u>103</u>	7.4	46	139
4	Bharathidasan University, School of Life Science	<u>97</u>	6.9	76	302
5	Bharathidasan University, Dept Animal Science	<u>91</u>	6.5	80	229
6	Bharathidasan University, Dept Botany	<u>73</u>	5.2	31	134
7	Bharathidasan University, School of Physics	<u>44</u>	3.1	2	42
8	Bharathidasan University, Dept Maths	<u>41</u>	2.9	101	184
9	Bharathidasan University, Ctr Nonlinear Dynam	<u>40</u>	2.9	70	482
10	Bharathidasan University, Dept Biotechnology	<u>31</u>	2.2	5	44
11	University Zurich, Inst Organ Chemistry	<u>30</u>	2.1	0	84
12	Bharathidasan University, Dept Plant Science	<u>24</u>	1.7	13	87
13	Indian Inst Chem Technol, Lab Xray Crystallog	<u>23</u>	1.6	0	33
14	CNR, IMEM	<u>22</u>	1.6	9	111
15	University Aberdeen, Dept Chemistry	<u>20</u>	1.4	0	10
16	Bharathidasan Univ, Natl Facil Marine Cyanobacteria	<u>19</u>	1.4	15	75
17	Panjab University, Univ Inst Pharmaceut Science	<u>19</u>	1.4	0	48
18	University St Andrews, Sch Chemistry	<u>19</u>	1.4	0	10
19	University Durham, Dept Chemistry	<u>18</u>	1.3	2	90
20	Panjab Univ, Inst Pharmaceut Science	<u>17</u>	1.2	0	49

#	Institution With Subdivision	Recs	%	Tlcs	Tgcs
21	University Madras, Dept Crystallog & Biophys	15	1.1	17	28
22	Anna University, Dept Physics	13	0.9	2	36
23	Karnatak Univ, Postgrad Dept Studies Chemistry	13	0.9	0	21
24	Bharathidasan Univ, Ctr Remote Sensing	11	0.8	11	14
25	University Akron, Dept Chemistry	11	0.8	0	147
26	Annamalai University, Dept Chemistry	10	0.7	1	8
27	Coventry Univ, Fac Hlth & Life Science	10	0.7	0	7
28	University Kerala, Dept Zoology	10	0.7	18	19
29	University Parma, Cnr	10	0.7	26	77
30	Adam Mickiewicz University Poznan, Dept Chemistry	9	0.6	0	18
31	Howard University, Dept Chem	9	0.6	1	17
32	Louisiana State Univ, Dept Chem	9	0.6	0	13
33	Indian Inst Sci, Mol Biophys Unit	8	0.6	3	24
34	Presidency Coll, Dept Physics	8	0.6	0	11
35	Saurashtra Univ, Dept Chemistry	8	0.6	1	5
36	Riken, Inst Phys & Chem Res	7	0.5	36	107
37	Vellore Inst Technol, Dept Chemistry	7	0.5	9	13
38	Bharathidasan University	6	0.4	7	13
39	Bharathidasan Univ, Sch Earth Sci	6	0.4	11	43
40	Bharathidasan Univ, Sch Geosciences	6	0.4	1	1
41	Bharathidasan Univ, Shanmugha Coll Engineering	6	0.4	0	0
42	Jawaharlal Nehru Ctr Adv Sci Res, Chem & Phys Mat Unit	6	0.4	11	51
43	Womens Christian Coll, Dept Phys	6	0.4	8	9
44	Bharathidasan Univ, Sch Engn & Technology	5	0.4	1	11
45	Cent Salt & Marine Chem Res Inst, Bhavnagar	5	0.4	4	7
46	Jamal Mohamed Coll, Dept Chemistry	5	0.4	5	28
47	Natl Inst Adv Ind Sci & Technol, Aist	5	0.4	2	40
48	Natl Tsing Hua Univ, Dept Chem	5	0.4	1	112
49	University Neuchatel, Inst Chim	5	0.4	1	16
50	4 Publication 20	80			
	3 Publication 34	102			
	2 Publication 78	156			
	1 Publication	320			

### *Year-wise Distribution of Citation Score*

Table 5. Provides a chronological histogram of citations, demonstrating that citation frequency grew steadily from 1981, when it reached a maximum GCS of 681 in 1998 and LCS of 165 in 1997.

### *Bibliometric Summary of by Bharathidasan University Publications*

Table 6. gives a bibliometric summary of Bharathidasan University publications: 1400 papers that were included in WOS were published in 84 journals. They were co-authored by 1152 people. 1400 papers cited 7468 other papers, which were published in different sources.

### *Institutions with Department wise Distribution of Research Output*

Table 7 indicates Institution with Department-wise research productivity. It is noted that Department of Physics ranks first in order by contributing 380(27.1%) of total research output. The second place in order is recorded by Department of Physics, which shares 372(26.6%), The other Collaborative Institutions and Departments have given less than 10 per cent research output.

## **Conclusion**

Citation analysis is a practical tool to evaluate how a researchers are meeting the needs of local users and particularly useful because of the interdisciplinary nature of the new institute and the heavy reliance on journals. The data obtained from journal articles composed the majority of the Physics and Chemistry literature, and showed which journal titles are used the most. Information obtained about journals not owned can be used in collection management decisions in the future. This paper has highlighted quantitatively the contributions made by the Bharathidasan University researchers in the field of science during 1981-2007 as reflected in Web of Science database. During 27 years

period (1981 –2007) University contributions in terms of number of publications is not significant. Though the records available in the Web of Science database reveal a small number, it is important that the Web of Science covers only the peer-reviewed journals. We suggest for tracking citation record of papers so that the impact of publications in science may be visible.

## **References**

1. Garfield, E. (1971) "Citation indexing, historiography and the sociology of science biography", *Current Contents*, No. 15, pages M25+. Reprinted from: K.E. Davis & W.D. Sweeney (Eds) *Proceedings of the Third International Congress of Medical Librarianship* 5-9 May 1969. (pp. 187-204). Amsterdam: Excerpta Medica. Reprinted in Garfield E. (1977). *Essays of an Information Scientist* (Vol 1, pp.158-174). Philadelphia: ISI Press (1977). Available: <http://www.garfield.library.upenn.edu/essays/V1p158y1962-73.pdf>
2. Milgram S. Small World Problem. *Psychology Today*. 1967; 1(1): 61-67.
3. Garfield E, Pudovkin AI, and Istomin VS. Why do we need Algorithmic Historiography?" *Journal of the American Society for Information Science and Technology (JASIST)*. 2003; 54(5): 400-412. [http://garfield.library.upenn.edu/papers/jasist54\(5\)400y2003.pdf](http://garfield.library.upenn.edu/papers/jasist54(5)400y2003.pdf)
4. Garfield, E & Sher, IH. Genetics Citation Index: Experimental Citation indexes to Genetics with Special Emphasis on Human Genetics. *Philadelphia: Institute for Scientific information*. 1963; 854. cf. introductory material, pp. i-xviii.
5. Garfield, E. (1973), "Citation Frequency as a Measure of Research Activity and Performance", *Essays of an Information Scientist*, Vol:1, pp. 406-408, 1962-73. <http://www.garfield.library.upenn.edu/essays/V1p406y1962-73.pdf>
6. Garfield E. Citation indexes for science: a new dimension in documentation through association of ideas. *Science*. 1955; 122: 108-111.
7. <http://www.istl.org/05-summer/refereed.html>