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EDITORIAL: ISSI PRESIDENT'S UPDATE 2016

BY **CASSIDY SUGIMOTO,** PRESIDENT, ISSI

It has been one year since we met in Istanbul and I began my role as ISSI President. In my inaugural message, I wrote of many of the challenges and opportunities facing our international society. In this update, I will report on the activities of the ISSI Board over the past year, particularly in regards to the issues raised in the inaugural address.

One of my primary goals for the first year was the integration of doctoral students more fully into the life of the society. To this end, the ISSI Board has created a new Student Travel Award that will facilitate the participation of a diverse student population in our biennial meetings. Funding at €2000 per student will be provided for up to three individuals to attend the 2017 ISSI conference in Wuhan, China. The committee for selecting the 2017 Student Travel awardees will be chaired by Kevin Boyack (USA) and include Sybille Hinze (Germany), Ismael Rafols (Spain), Andrea Scharnhorst (Netherlands) as members. Ge-

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Accepted contributions are moderated by the board. Guidelines for contributors can be found at http://www.issi-society.org/editorial.html.

ographic diversity will be taken into account in the selection of individuals as well the students' potential to contribute to the society.

We will also continue our tradition of supporting outstanding doctoral research in scientometrics and informetrics through the Eugene Garfield Doctoral Dissertation Scholarship. The Eugene Garfield Foundation has generously provided a scholarship award since 2005 to support dissertation research and travel to ISSI conferences. An award of $3000 will be provided to an exemplary doctoral candidate. This committee will be chaired by Birger Larsen (Denmark). We are currently seeking volunteers for this committee. Please email me if you are interested in getting involved (sugimoto@indiana.edu).

It is also important that we recognize the best research being conducted in the field. To this end, the ISSI Board has created a new award to recognize the best paper, annually, in the field of scientometrics and informetrics. I will chair the inaugural ISSI Paper of the Year Award committee and be joined by Vincent Larivière (Canada), Ronald Rousseau (Belgium), Ludo Waltman (Netherlands), and Lin Zhang (China). Nominations must include a short text (no more than 500 words) explaining the importance of the contribution and should be emailed to me (sugimoto@indiana.edu) by August 1, 2016.

The inaugural address also emphasized the need for our society to advocate widely for the responsible use of metrics. I have observed this consultation and advocacy in several capacities. For example, I was pleased to see our members heavily represented among the experts invited to speak on the next Science and Engineering Indicators—the major quantitative report in the United States on the state of science and engineering. I presented alongside Éric Archambault (Canada), Wolfgang Glänzel (Belgium), Thed van Leeuwen (Netherlands), Ismael Rafols (Spain), and Paul Wouters (Netherlands). It is critically important that the expertise of our members be applied in these consultative activities.

I am also proud of my own institution, Indiana University Bloomington, for passing a policy on responsible metrics that will govern institutional conduct in terms of use of faculty activity systems[1]. Based on the Leiden Manifesto[2], this policy provides five foundational principles to guide the purchase and use of evaluative systems at the institutional level. These and similar initiatives prompted by the Leiden Manifesto reinforce the importance of informed conversation around metrics, regardless of the level of application.

Communication is critical for a geographically distributed society such as ISSI. To improve our online communication, the ISSI Board solicited proposals for redesign and maintenance of the ISSI website. Proposals were due by July 9, 2016. We hope to unveil a high - functioning and contemporary website by the end of the year. We have also created a new Twitter handle for the ISSI President (@issi_pres), to provide more timely and active updates to our members and other interested stakeholder groups.

Our biennial conference serves an important role in encouraging communication among our members. Conference planning for the 16th International Conference on Scientometrics and Informetrics to be held in Wuhan, China is well underway. I encourage you all to visit the website (www.issi2017.org), mark your calendar for October 16-20, and begin preparing your best work for submission.

It has been an active year and I would like to thank my industrious board—Kevin Boyack (USA), Wolgang Glänzel (Belgium), Vincent Larivière (Canda), Jacqueline Leta (Brazil), Grant Lewison (UK), and Nees Jan van Eck (Netherlands)—for all their work on these initiatives. I am looking forward to another productive year of ISSI!

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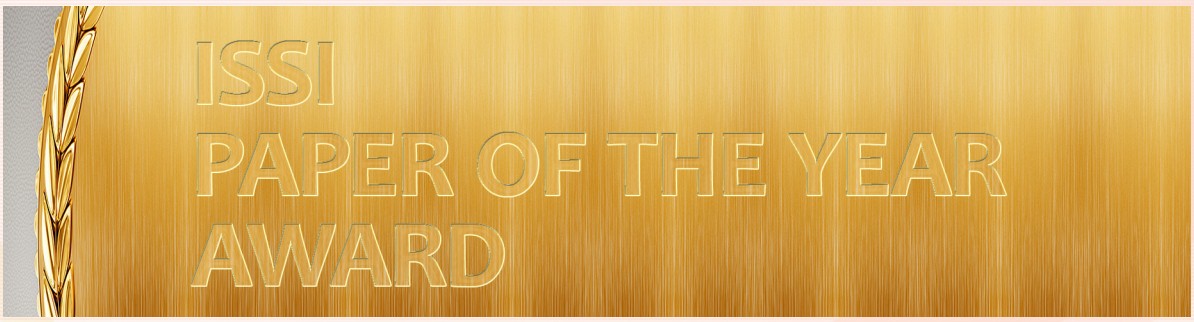
1 http://inside.indiana.edu/editors-picks/campus-life/2016-05-04-from-the-desk.shtml

2 http://www.nature.com/news/bibliometrics-the-leiden-manifesto-for-research-metrics-1.17351



We would like to invite nominations for the first annual International Society for Scientometrics and Informetrics (ISSI) Paper of the Year award. The goal of this award, established by the 2016 ISSI Board of Directors, is to stimulate and recognize high quality research in the field of scientometrics and informetrics.

ELIGIBILITY

The paper must be published in 2015 or 2016. Publication can be defined as posting a preprint, acceptance and online publication, or final publication of a work. Conference papers and journal articles are accepted for nomination. A paper cannot be nominated more than twice for the award. The authors of the paper do not need to be members of ISSI.

NOMINATION

Any paper on a topic in the field of scientometrics and informetrics can be nominated, without restriction to specific journals. **Only members of ISSI are eligible to nominate papers and nominations must be made by August 1, 2016. The nomination must include a short text (no more than 500 words) explaining the importance of the contribution. Nominations should be emailed to Dr. Cassidy R. Sugimoto, President of ISSI, at sugimoto@indiana.edu. Only one nomination will be accepted from each nominator.**

SELECTION

The ISSI Board will appoint a subcommittee of no more than five members and chaired by the President of ISSI, to determine the validity of the nominations and to select ten papers to forward to the ISSI membership for voting. Selection will be based on the quality of the papers and the arguments made by the nominators in the nomination packet.

VOTING

Electronic ballots will be sent to all members of ISSI, who will be provided with the full bibliographic material as well as links to the nomination material for each of the ten selected papers. Each member will be allowed to cast three ranked votes across the set, with the top ranked choice receiving three points, the second ranked choice two points, and the three ranked choice one point. The paper receiving the most votes will be selected as the Paper of the Year. Two runner-up papers will also be selected. In the case that multiple papers receive the same highest score, all will be awarded as Paper of the Year.

ANNOUNCEMENT & AWARD

Awardees will be notified no later than **November 1, 2016**. Awardees will be announced in the ISSI Newsletter and notification of the winners will be sent to the editors of *Scientometrics* and *Journal of Informetrics*, to encourage recognition in these venues. Notification will also be sent to the journal in which the work was published. Awardees will formally receive their award in ceremony at the 2017 ISSI conference in China and will be invited to present on their award winning work, if this work has not been previously presented at ISSI. Conference registration will be provided for one presenter.

On behalf of
Cassidy R. Sugimoto, President ISSI

INTERNATIONAL SOCIETY FOR SCIENTOMETRICS AND INFORMETRICS (ISSI) **STUDENT TRAVEL AWARD**

The goal of the International Society for Scientometrics and Informetrics (ISSI) Student Travel Award is to facilitate the participation of a diverse student population in the meetings of ISSI.

ELIGIBILITY

At the time of application, the student must be enrolled in an academic program.

APPLICATION

The student should submit a short statement (no more than 1000 words) detailing their interest in the field and the value they anticipate deriving from attendance of the ISSI conference. The student should also submit one letter of recommendation and a current CV/resume. Applications should be received at least one year prior to the ISSI conference.

SELECTION

Several factors will be taken into consideration in the evaluation, focusing primarily on the mutual benefits to be derived for both the student and the society as well as the individual merit of the student. Geographic diversity will be considered in the selection process.

The evaluation committee will consist of a subcommittee of no more than four individuals, with one ISSI Board member serving as Chair. The Board will select at least one and no more than three individuals each year, depending on the applicant pool, location of the conference, and financial resources available.

ANNOUNCEMENT

Awardees will be notified at least six months prior to the ISSI conference, to allow ample time for the student to arrange travel accommodations.

AWARD

The award will consist of up to €2000 to cover transportation and lodging for the individual. Conference registration and per diem will not be provided. Awardees should arrange their own travel and provide receipts to ISSI for reimbursement.

DETAILS FOR ISSI 2017

The 16 th ISSI Conference will be held at Wuhan University, Wuhan, China from 16-20 October, 2017. The travel award committee for 2017 will consist of Kevin Boyack (chair), Sybille Hinze, Ismael Rafols, and Andrea Scharnhorst. Applications for the 2017 ISSI Student Travel Award should be submitted to Kevin Boyack at kboyack@mapofscience.com by October 21, 2016.

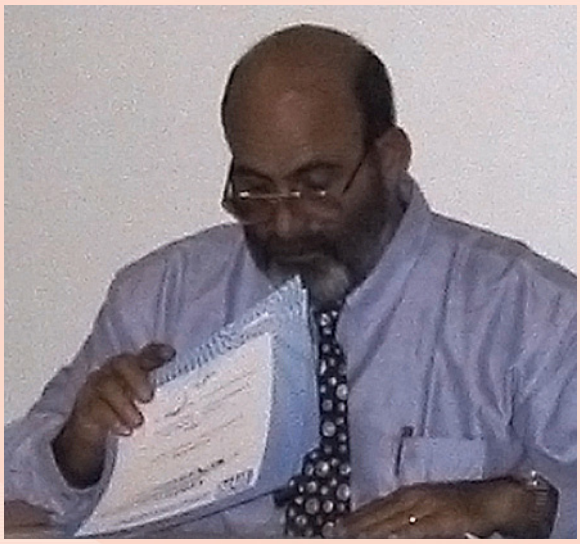
VIII INTERNATIONAL SEMINAR ON THE QUANTITATIVE AND QUALITATIVE STUDY OF SCIENCE AND TECHNOLOGY

"PROF. GILBERTO SOTOLONGO AGUILAR"

CALL FOR PAPERS

2–3 NOVEMBER, 2016
HAVANA, CUBA

This is the eighth edition of the international seminar held under the auspices of the biennial INFO congress. The first seminar took place on April 25, 2002 and has been held every two years since then to provide a forum for the identification of institutions and research interests in the field as well as a space for discussion among the different researchers and actors that participate in this important area of work.



The seminar is dedicated to the memory of Prof. Gilberto Sotolongo Aguilar († 2003)

RELEVANT TOPICS FOR THE VIII SEMINAR:

- Indicators to support decision making in science policy (economics, organization and management, information and

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communication technologies, resource management, foresight, impact and evaluation of research programs).

- Development of alternative metrics (Altmetrics)
- Visualization and organization of information as support tools for metric studies.
- Analysis, design and application of software.
- Analysis of Big Data and data/text mining techniques as applied to indicators.
- Theoretical aspects and practical problems of the qualitative and quantitative study of science and technology.
- Scientific communication models (systems approaches, mathematical models, etc.).
- Patterns of communication, collaboration, information flows in S&T, migration (networks and citation analysis, journal impact factors, national and international flows, etc.)
- Scientific production (disciplines, gender studies, research departments, institutes, countries, etc.)
- Literature dynamics (history, growth, obsolescence, scattering, S/T relations, etc.)

Thanks to the goodwill of the editors of the *Revista Española de Documentación Científica* and the Brazilian journal *Transformação*, a selection of papers from the Seminars has been widely published. Also write-ups of the Seminars have appeared in the ISSI Newsletter, published by the International Society for Scientometrics and Informetrics.

The eighth seminar will take place on November 2nd and 3rd, 2016. The scientific committee will accept research studies, review papers and case studies completed or in progress, related to the evaluation of science and technology. Studies on all variants of metric studies of information will be considered, without discounting the importance of qualitative analytical methods and approaches.

Colleagues interested in presenting their work at the Seminar should send their contributions clearly indicating the title, names of the authors, their institutional adscriptions, abstract and including the following sections: (1) background (2) objectives (3) methodology/focus (4) main results and

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conclusions. Spanish is the official language of the seminar nonetheless papers in other languages will be considered at the discretion of the Organizing Committee.

IMPORTANT DATES

Submission of papers:	30 Jul 2016
Notification of acceptance:	30 Sep 2016

Contributions should be sent electronically to seminario@finlay.edu.cu or uploaded to the INFO Congress website. For more information on the requirements of submissions (length, font, keywords, etc.) as well as general information on the INFO Congress (program, registration, hotel reservations, etc.) please visit the official congress website: www.congreso-info.cu

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altmetrics16

CALL FOR PAPERS

27 SEPTEMBER 2016
UNIVERSITY OF MEDICINE AND PHARMACY CAROL DAVILA,
BUCHAREST, ROMANIA

altmetrics16 is a follow-up to the successful altmetrics11 (http://altmetrics.org/workshop2011/), altmetrics12 (http://altmetrics.org/altmetrics12/), altmetrics14 (http://altmetrics.org/altmetrics14/) and altmetrics15 (http://altmetrics.org/altmetrics15/) workshops. The workshop is co-organized with the 3rd Altmetrics Conference (3:AM) (http://altmetricsconference.com/) and will take place on 27 September 2016 at the University of Medicine and Pharmacy Carol Davila (http://www.umfcaroldavila.ro/) in Bucharest, Romania.

CALL FOR CONTRIBUTIONS

We are soliciting empirical and theoretical contributions for short presentations and as a basis for discussions, which will be the main focus of the altmetrics16 workshop. Submissions can focus on empirical analyses, novel theoretical frameworks, original datasets or represent a position paper. The goal of the workshop is to discuss, exchange and foster collaboration on altmetrics between researchers and practitioners. While an abstract is not a requirement to attend the workshop, we strongly encourage prospective participants to submit a contribution to seed the discussions.

The organizers will give priority to submissions linking to original research artifacts and focusing on the theme of this year's workshop. All accepted submissions will be made available via the workshop website prior to the workshop.

HOW TO SUBMIT

Please provide an extended abstract (max 1,000 words) presenting your altmetrics research contribution and highlighting particular issues you would like to discuss with other workshop participants. Abstracts can be submitted via EasyChair (direct link). Please include a link to any relevant artifact (e.g., a dataset, plots, slidedeck) you wish to present and discuss, after archiving it via an appropriate repository (e.g., Dryad, figshare, GitHub, SlideShare, etc.).

Contributions should be submitted by 14 August 2016 and will be curated by the altmetrics16 committee for their relevance and technical soundness.

Accepted contributions will be made available on the workshop website (http://altmetrics.org/altmetrics16/) by 29 August 2016. A limited number of contributions will be selected for short presentations. Notifications to authors of submissions shortlisted for presentations will be sent by 29 August 2016.

IMPORTANT DATES

- 14 August 2016: submission deadline
- 29 August 2016: notification of acceptance
- 27 September 2016: altmetrics workshop

BOOK REVIEW

SCIENTOMETRICS: QUANTITATIVE METHODS FOR LIBRARY AND INFORMATION SCIENCE

BY DR. S. L. SANGAM
CONTENT CRAFT PUBLISHER. BANGALORE, INDIA 2015
XI, 254 PAGES. ISBN 9788191009927

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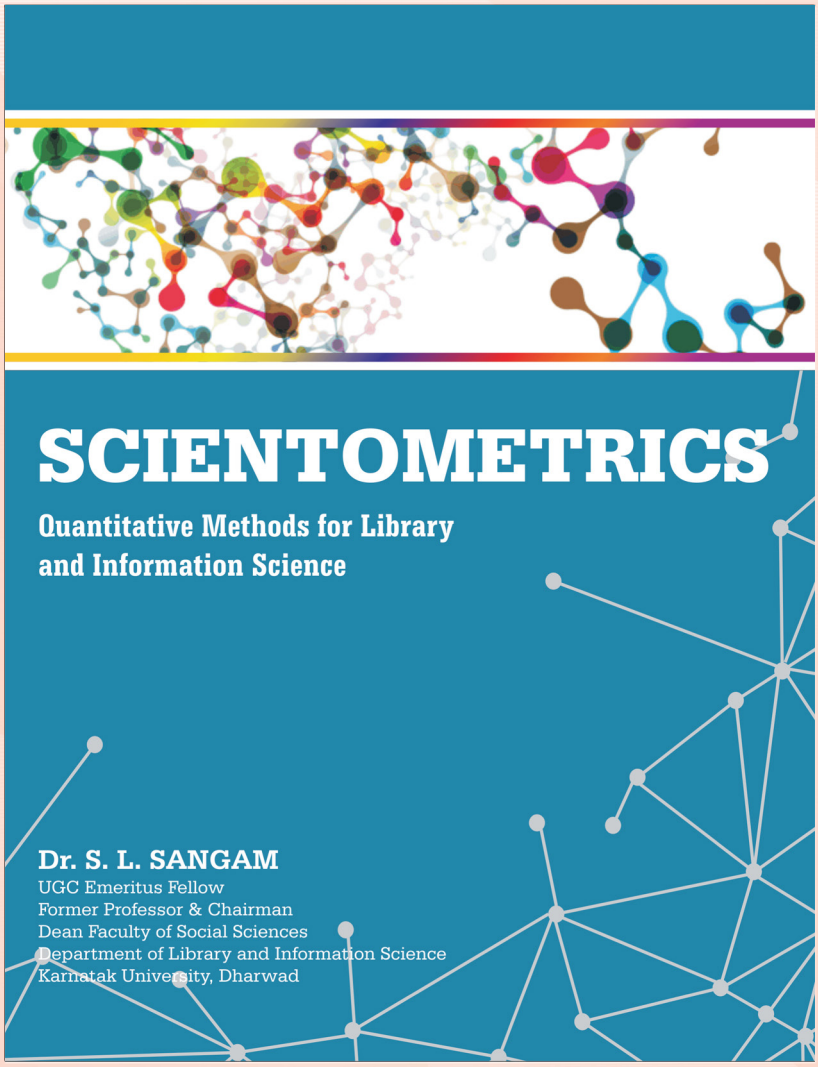

The book under review is a commendable addition to the professional literature in English in Library and Information Science written by Prof. S.L. Sangam (UGC Emeritus Fellow, Department of Library and Information Science, Karnatak University, Dharwad) for the benefit of students, teachers, research scholars and information scientists. Especially in India a need was felt for an up-to-date comprehensive book on scientometrics and informetrics, covering the theoretical and practical aspects of the field. In the present book the author has tried to touch all important aspects of Scientometrics and Informetrics. Chapters on the book are designed in a systematic way leading

to an undisturbed flow of ideas. The author uses tables, charts and illustrations wherever necessary for a proper understanding of the topic at hand.

The book consists of 14 chapters. The first chapter deals with the *development of quantitative methods in Library and Information science*, including an introduction of the basic theoretical concepts from librametrics to webometrics. Chapter two covers *citation analysis* in a broad perspective, explaining the citing-cited relation between documents. It includes an overview of reasons for giving citations, illustrated with examples. Chapter three is devoted to *the bibliometrics laws*: the backbone of theoretical bibliometric studies. It contains a step by step explanation of the calculation and verification of these laws. Chapter four covers *models for the growth of the scientific literature* and discusses various models such as the exponential, the logistic and the polynomial model. This chapter includes figures and provides practical applications. Chapter five deals with *authorship patterns and collaboration research* with solved examples for measuring collaboration. Chapter six explains the term *obsolescence of the literature,* discusses types of obsolescence and explains how to measure obsolescence factors using semi-log graphs. Chapter seven covers *journal impact factors*. Chapter eight describes the methods for calculating the *H-index* and similar h-type indexes. Chapter nine explains the procedures and criteria used for *ranking universities and institutions*. Chapter ten consists of *scientometric portraits*, measuring individual scientists' life and work. Chapter eleven deals with bibliometrics *for assessing scientific productivity* and research impact. Chapter twelve provides a *mapping of social science literature*. Chapter thirteen covers important *software tools for scientometric analysis*. Finally, chapter fourteen discusses useful *data sources* for scientometric studies.

The book has been written keeping the reader (student, teacher or researcher) in mind and as such provides an understanding about how to use or apply statistical models. It contains appropriate solved examples and contains additional sources of supplementary reading. The unique feature of this book is the fact that actual procedures, steps and calculating methods of data are presented with concrete examples. Of course also theoretical aspects of scientometrics are clearly presented.

I sincerely feel that the book can be used not only as a textbook for post-graduate students and research scholars in Library and Information Science, but other disciplines can draw valuable insights from it for their courses. Further I also feel that because of its richness and simple solved examples it will be a good reference book for librarians, researchers and scientometricians. Only a very keen, enthusiast and bright professional can produce such an effective writing.

THE AP-INDEX: WITHIN AND BEYOND HIRSCH CORE

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The h-index was introduced by J.E Hirsch [1] as an indicator to quantify an individual's scientific research output. When a scientist's list of publications is ranked according to the number of citations received, the h-index is defined as the number of the first h-publications which have received at least h citations. The papers ranked between rank 1 and h form the Hirsch core. In case of several publications with h-citations lying at the edge of the Hirsch core i.e in case of ties among papers having same h number of citations, younger article is taken into the core and older ones are left out of the core. The h-index is by far the most popular citation indicator because it is simple to get and it does not involve any calculation. However, it has several limitations. The h-index does not give weightage to the extra number of citations above h for the articles lying between rank 1 to h i.e the articles in Hirsch core. Also, the h-index ignores the number of citations to each individual's articles beyond what is needed to achieve a certain h-index i.e the articles beyond Hirsch core. Jin et al [2] introduced the R-and AR-indices to complement the h-index. The R-index measures the h-core's citation intensity, while AR-index goes one step further and takes into account the age of publication.

Egghe [3] proposed g-index considering the citation intensity of papers starting from rank 1 to the rank g up to which the sum of citations of those g-papers exceeded the square of the rank i.e r^2. Thus, Egghe was able to go somewhat beyond h-core. But, all the papers may not be included and the citation intensity of top ranked papers dictates the g-index with $g \geq h$.

In light of the above scenario, I wish to propose the AP-index. The Academic Performance (AP)-index is defined as:

$$API = \sqrt{\sum_{p=1}^{N} Cit_p \left(1 - \frac{a_p}{a_s + 1}\right)}$$

where N denotes the total number of papers having any number of citations Cit_p of that particular paper of age a_p. a_p is the number of years the paper has completed from the year of publication to the present year of calculation. a_s is the scientific age of the author i.e. the number of years when the scientist published his / her first paper. The proposed AP-index has several improvements over the existing citation indicators:

1. It takes into account all the cited papers of a scientist.

2. It takes care of extra number of citation above h in the Hirsch core and thus takes a measure of h-core's citation intensity.

3. R-index and AR-index are confined to h-core only and these indicators are said to be complementing the h-index.
   g-index, on the other hand, goes somewhat beyond h-core considering the citation intensity of papers starting from rank-1 to the rank g upto which the total citation ΣTC exceeds the square of the rank r^2. However, the proposed AP-index not only incorporates citation intensity of papers in h-core but also goes much beyond and in fact, includes the citation of all papers of an individual.

4. h-index can not directly compare scientists working for different lengths of time. Offutt [4] pointed out that a derivative measure might be h-index divided by the age of the scientist a_s and it may be a better citation indicator. The present index also takes into consideration the relative age of the paper a_p and the age of the scientist a_s publishing it. The factor $[1-(a_p/(a_s+1))]$ decreases with time for a published paper indicating the possibility of decrease in the index with time if the Cit_p does not increase in the same proportion and new papers are either not published or not cited. Therefore, AP-index is more dynamic in nature.

5. More number of citations to recently published papers with smaller a_p will contribute significantly to the index. On the contrary, the old papers with higher a_p will have lesser contribution. So, AP-index is an adequate measure for junior academics and scientists with a late career start.

The h-index does not take into account the number of authors of a paper and also ignores the placement of an author in authors' list. It does not distinguish in giving credit to first, last or the middle authors. Since the proposed AP-index incorporates the individual paper's citation, it can also be multiplied by a factor fp representing the individual scientist's contribution in the paper. Several ways to quantify the fractional contribution of various authors of a paper have been explored [5].

The proposed AP-index may be transformed slightly to:

$$API = \sqrt{\sum_{p=1}^{N} Cit_p \cdot f_p \left(1 - \frac{a_p}{a_s + 1}\right)}$$

The fractional contribution, fp of an author can be taken in the spirit of the 2010 regulations of University Grants Commission (UGC), Govt. of India published in the gazette of India 2010 [6]. According to it the first / principal author and the corresponding author / supervisor / mentor would equally get a fraction of 0.6 (fp=0.6) and the remaining coauthors will get a fractional contribution of 0.4 (fp=0.4) equally among them. It may be noted that information about first author is readily available from citation from web. But, getting idea of cor-

responding author/ supervisor/ mentor may be difficult from citations available on Scopus / Scholar / Web of Science. Nonetheless, looking at the different fields and different number of collaborators, the prescription of UGC seems to be quite a reasonable option.

ACKNOWLEDGEMENT

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