

## Author Impact

### Prof. Dr. Paul J.J. Welfens

Papers:	677	Cites/paper:	3.69	h-index:	23	AWCR:	424.04
Citations:	2498	Cites/author:	1883.21	g-index:	32	AW-index:	20.59
Years:	36	Cites/author/year:	52.31	hc-index:	20	AWCRpA:	303.15
Cites/year:	69.39	Papers/author:	501.67	hl-index:	13.92	e-index:	19.10
		Authors/paper:	1.71	hl-norm:	19	hm-index:	19.70

Query date: 2015-07-01

Hirsch  $a=4.72$ ,  $m=0.64$

Contemporary  $ac=4.24$

Cites/paper:3.69/1.0/0 (mean, median, mode)

Authors/paper:1.71/1.0/1 (mean, median, mode)

372 paper(s) with 1 author(s)

197 paper(s) with 2 author(s)

63 paper(s) with 3 author(s)

24 paper(s) with 4 author(s)

20 paper(s) with 5 author(s)

1 paper(s) with 6 author(s)

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Source: <http://www.harzing.com/pop.htm>

### Hirsch's h-index

Proposed by J.E. Hirsch in his paper **An index to quantify an individual's scientific research output**, [arXiv:physics/0508025](https://arxiv.org/abs/physics/0508025) v5 29 Sep 2005. It aims to provide a robust single-number metric of an academic's impact, combining quality with quantity.

### Egghe's g-index

Proposed by Leo Egghe in his paper **Theory and practice of the g-index**, *Scientometrics*, Vol. 69, No 1 (2006), pp. 131-152. It aims to improve on the h-index by giving more weight to highly-cited articles.

### Zhang's e-index

Publish or Perish also calculates the e-index as proposed by Chun-Ting Zhang in his paper **The e-index, complementing the h-index for excess citations**, *PLoS ONE*, Vol 5, Issue 5 (May 2009), e5429. The e-index is the (square root) of the surplus of citations in the h-set beyond  $h^2$ , i.e., beyond the theoretical minimum required to obtain a h-index of 'h'. The aim of the e-index is to differentiate between scientists with similar h-indices but different citation patterns.

### Contemporary h-index

Proposed by Antonis Sidiropoulos, Dimitrios Katsaros, and Yannis Manolopoulos in their paper **Generalized h-index for disclosing latent facts in citation networks**, [arXiv:cs.DL/0607066](https://arxiv.org/abs/cs/0607066) v1 13 Jul 2006. It aims to improve on the h-index by giving more weight to recent articles, thus rewarding academics who maintain a steady level of activity.

### Age-weighted citation rate (AWCR) and AW-index

The AWCR measures the average number of citations to an entire body of work, adjusted for the age of each individual paper. It was inspired by Bihui Jin's note **The AR-index: complementing the h-index**, *ISSI Newsletter*, 2007, 3(1), p. 6. The Publish or Perish implementation differs from Jin's definition in that we sum over *all* papers instead of only the h-core papers.

### Individual h-index (original)

The Individual h-index was proposed by Pablo D. Batista, Monica G. Campiteli, Osame Kinouchi, and Alexandre S. Martinez in their paper **Is it possible to compare researchers with different scientific interests?**, *Scientometrics*, Vol 68, No. 1 (2006), pp. 179-189. It divides the standard h-index by the average number of authors in the articles that contribute to the h-index, in order to reduce the effects of co-authorship.

### Individual h-index (PoP variation)

Publish or Perish also implements an alternative individual h-index that takes a different approach: instead of dividing the total h-index, it first normalizes the number of citations for each paper by dividing the number of citations by the number of authors for that paper, then calculates the h-index of the *normalized* citation counts. This approach is much more fine-grained than Batista et al.'s; we believe that it more accurately accounts for any co-authorship effects that might be present and that it is a better approximation of the per-author impact, which is what the original h-index set out to provide.

### Multi-authored h-index

A further h-like index is due to Michael Schreiber and first described in his paper **To share the fame in a fair way,  $h_m$  modifies h for multi-authored manuscripts**, *New Journal of Physics*, Vol 10 (2008), 040201-1-8. Schreiber's method uses fractional paper counts instead of reduced citation counts to account for shared authorship of papers, and then determines the multi-authored  $h_m$  index based on the resulting effective rank of the papers using undiluted citation counts.