## Moving from the journal impact factor into the single researcher impact factor

Gianluca Castelnuovo

As indicated by Hobbs's contribution, it's time to better consider good alternatives for the "Impact Factor" algorithm (1). For example it might be more useful to consider the merits and contributions of all the scientific activities of each single researcher instead of measuring or adding only the IF numbers. For example, as reported in a recent debate on Science about the peer reviewer responsibilities (2), writing and finalizing an article is a real complex process where reviewers can usually offer a valid and crucial scientific contribution that can make an article ready to be published and appreciated in the scientific community.

In order to make peer-reviewers more compliant in their fundamental role for the improvement of science, according to Metz's solutions (3) (such as "count of average manuscript reviews per year on applicant CVs", p. 1335) and to the up-to-date scientific debate about how to find a better index than IF to measure the single scientist's impact factor (4, 5, 1), one possible solution is to create a new index, such as the Single Researcher Impact Factor (SRIF) that can take into account number and quality of the traditional publications and of the other activities usually associated with being a researcher, such as reviewing manuscripts.

Some experimental versions of this new index are under evaluation in Economics (6), Psychology (7) and Medicine (8, 9). By replacing the journal-centered IF with a single researcher-centered IF, that can include reviewing activity too, the evaluation of individual scientific impact in the community will more accurate and could motivate researchers, overall young ones, in reviewing (without frustration), publishing and sharing their ideas.

1 Castelnuovo G., Are there good alternatives for the "Impact Factor" algorithm?, response to H. Brown How impact factors changed medical publishing—and science, BMJ, 2007; <u>http://www.bmj.com/cgi/eletters/334/7593/561#162628</u>

2 Perrin W. F., In Search of Peer Reviewers, Science, 2008, 319, 5859, 32

3 Metz M. A., Rewarding Reviewers, Science, 2008, 319, 5868, 1335

4 Brown H., How impact factors changed medical publishing—and science, BMJ, 2007; 334: 561-564

5 Gracza T., Somoskovi I., Impact factor and/or Hirsch index?. Orv Hetil, 2007, 148, 18, 849-852

6 Tucci P., Fontani S., Ferrini S., L'R-factor: un nuovo modo di valutare la ricerca scientifica, Quaderni del Dipartimento di Economia Politica, 527, 2008, 1-38

7 E. Molinari, G. Castelnuovo, La valutazione della produzione scientifica in psicologia clinica: impact factor e prospettive integrative, in E. Molinari, A. Labella (Eds.), Psicologia Clinica: Dialoghi e confronti, Springer, 2007, 203-215

8 Adams, A.B. and D. Simonson, Publication, citations, and impact factors of leading investigators in critical care medicine. Respiratory Care, 2004, 49(3), 276-281

9 Ironside P. M., Rethinking the meaning and significance of journal impact factors, J Gerontol Nurs, 2007, 33, 6, 3-4

Competing interests: None declared