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Memo CP-D/698

Date: 16 May 2011
To: Distribution
From: N. Otsuka, M. Herman
Subject: Automatic DOI number creation

According to the Action 9 of the NRDC 2010 Meeting “*Find algorithm of automatic DOI number creation and issue Memo*”, we report the result of our assessment.

We found simple relations between bibliographic information (volume, page) and DOI numbers for a few journals:

Journal	DOI	Example
Phys. Rev. C	10.1103/PhysRevC.\$vol.\$paper	10.1103/PhysRevC.83.024601
J. Nucl. Sci Technol.	10.3327/jnst.\$vol.\$page	10.3327/jnst.44.815
J. Phys. G (Vol. 35-)	10.1088/0954-3899/\$vol/\$issue/\$paper	10.1088/0954-3899/38/6/065001

But many cases (e.g. journals published by Elsevier, Springer), we do not see such simple relation.

Example: Nucl. Phys. A (Vol. 857 and Vol. 858)

Vol.	Page	DOI	Accepted	Available online
857	1-8	10.1016/j.nuclphysa.2011.03.005	9 March 2011	15 March 2011
	9-15	10.1016/j.nuclphysa.2011.03.006	11 March 2011	16 March 2011
	16-28	10.1016/j.nuclphysa.2011.03.007	16 March 2011	22 March 2011
	29-41	10.1016/j.nuclphysa.2011.03.008	18 March 2011	23 March 2011
	42-47	10.1016/j.nuclphysa.2011.03.012	28 March 2011	2 April 2011
858	1-10	10.1016/j.nuclphysa.2011.03.011	23 March 2011	8 April 2011
	11-31	10.1016/j.nuclphysa.2011.03.010	20 March 2011	23 March 2011
	32-47	10.1016/j.nuclphysa.2011.03.009	20 March 2011	23 March 2011
	48-66	10.1016/j.nuclphysa.2011.04.002	10 April 2011	15 April 2011
	67-85	10.1016/j.nuclphysa.2010.12.001	2 December 2010	10 December 2010
	86-94	10.1016/j.nuclphysa.2011.03.013	28 March 2011	8 April 2011
	95-105	10.1016/j.nuclphysa.2011.03.014	31 March 2011	5 April 2011

It seems to us the DOI of Nucl. Phys. A is currently assigned as

10.1016/j.nuclphysa.\$year.\$month.\$seq

, where \$year and \$month are taken from *date of acceptance*, and \$seq is a *sequential number of acceptance*. This means we cannot create these DOI numbers from standard bibliography information. Remember that now Elsevier puts article pdf files on Science Direct with DOI numbers before assignment of page number. Probably paper numbers of Phys. Rev. C and J. Phys. G are assigned in sequence of acceptance.

Conclusion: There is no general algorithm to generate DOI numbers applicable to the EXFOR REFERENCE.

Remarks:

- (1) DOI numbers coded in the EXFOR Master File were checked in January 2011. Totally 234 DOI numbers were found and 74 erroneous coded lines were reported in Memo CP-D/679.
- (2) Cross Ref[®] is providing the “free DOI look up” service at <http://www.crossref.org/guestquery/>. On this webpage, one can obtain a DOI number from the ISSN number (or Journal Title), volume and page number of the article.

Example of DOI Search (Nucl. Phys. A Vol.857 p1)

Limit search to: ☒ Journal OR ☐ Book/Conference Proceeding

First Author ISSN

Journal Title

Article Title

Volume Issue Page Year

ISBN Component Number

Series Title

Enable Multiple Hits ☒



Journal Title	Author	ISSN	Volume	Issue	Page	Year
DOI	Persistent Link					
Article Title						
Nuclear Physics A	Morais	03759474	857	1	1	2011
doi:10.1016/j.nuclphysa.2011.03.005		http://dx.doi.org/10.1016/j.nuclphysa.2011.03.005				
?-Spectroscopic factor of ^{16}O gs from the $^{12}\text{C}(^{16}\text{O},^{12}\text{C})^{16}\text{O}$ reaction						

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