

Electronic journals in science and in the VO - with an example: the IBVS

A. Holl & P. Erdódi, Konkoly Observatory, Budapest

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We review some technical features - existing and under development - which might contribute to the functionality of scholarly electronic journals in science. We also describe recent and planned improvements of the electronic Information Bulletin on Variable Stars. Some VO-related features of electronic journals are discussed too.

- **Visibility of papers**

- a technology: OAI-PMH (and a promise: free access)
- IBVS: an OAI gold journal + YAR repository
- OAI-PMH based open services (e.g. OAlster, etc.)
- unique identifiers: DOI (a handle), bibcode (in astronomy)
- CrossRef, based on DOI
- Astronomy: ADS (CDS Biblio, ARIBIB)
- database linking (e.g. IBVS links from
 - ADS, Simbad, GCVS, NED, (WFPDB?)
 - IBVS DataService links from Simbad?

- Alerting services, journals made for you, APIs

- ADS: myADS, web feed
- IBVS: IBVSlatest (based on AST - user mode/API?) + web feed
- personalized, virtual journals, like myADS-arXiv
- APIs for including journal information to other services -
IBVS DataService

- **Better hyperlinks**

- no URN - URL / URI instead
- OpenURL
- CDS GLU
- link generation from source (e.g. IBVS with CDS techn.)
- linking to third party software tools:
 - IBVS Aladin links
 - identification charts via Aladin with IBVS annotation?
Matching old charts to Aladin maps?

- Archiving

- web archives / library projects
- individual archiving arrangements / mirrors

- Semantic web

- flow of meta-information - automated (PMH &/or simpler)
- flow of information as seen by Berners-Lee -
IBVS: simpler possibilities (markup, tables, harvesting)

- Intelligent search

- IBVS: the Advanced Search Tool
 - author name and object name resolution
 - using third-party knowledge bases
 - search for figures, data files
 - logical operators & regular expressions
 - API for other services (ADS)?
- IBVSDataService
- through ADS



COMMISSIONS 27 AND 42 OF THE IAU
INFORMATION BULLETIN ON VARIABLE STARS



IBVS – Advanced Search Tool

[General Search Settings](#) – [Full Text Search](#) – [Article Metadata Search](#) – [Figure Search](#) – [Data File Search](#) – [Help](#)

General Search Settings

Case sensitive:
Show results.
Search from No. to No.

Object name resolution:
 none Local GCVS Simbad
Author name resolution:
 none Local ADS

Full Text Search

Text:
RegularExpression
 [Top Help](#)

Article Metadata Search

Title words:
Author List:
Abstract Text:
Object Name:
Publication Date: Between and

- **Data supplements**

- Data belonging to the publication:
 - non-archived data could be stored & served by journals
- move / duplicate printed tables & figures to e-tables
- VO formats: VOTable
- VO tools for discovering, accessing & handling the data

- Quality control

- alternatives of peer review? - endorsement, voting, comments - standard peer review remains at IBVS
- IBVS: errata, corrections
- IBVS - need for better history & correction handling

- Web 2.0: community involvement

- IBVS: first on web, later on print: error discovery & correction

- **References / URLs**

- YAR: Yet Another Repository, LANL, <http://yar.sourceforge.net>
- DOI: Digital Object Identifier System, <http://www.doi.org>
- CrossRef: <http://www.crossref.org>
- Handle System®: <http://www.handle.net>
- myADS: Henneken et al., 2006; <http://arxiv.org/abs/cs/0608027>
- OpenURL: Van de Sompel et al, 2001;
<http://www.dlib.org/dlib/march01/vandesompel/03vandesompel.html>
- CDS glufilter: <http://simbad3.ustrasbg.fr/glu/glu.htx>
- semantic web: Shadbolt et al., 2006; <http://eprints.ecs.soton.ac.uk/12614/>
- IBVS: <http://www.konkoly.hu/IBVS/IBVS.html>