

2008 Fall Meeting
Search Results

Cite abstracts as **Author(s) (2008), Title, Eos Trans. AGU, 89(53), Fall Meet. Suppl., Abstract xxxxx-xx**

Your query was:

klump

HR: 15:25h

AN: **U13D-07**

TI: [Persistent Identifiers in the Publication and Citation of Scientific Data - Theory and Practice](#)

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AB: In the last decade data driven research has become a third pillar of scientific work alongside with theoretical reasoning and experiment. Greatly increased computing power and storage, together with web services and other electronic resources have facilitated a quantum leap in new research based on the analysis of great amounts of data. However, traditional scientific communication

only slowly changes to new media other than an emulation of paper. This leaves many data inaccessible and, in the long run exposes valuable data to the risk of loss. To improve access to data and to create incentives for scientists to make their data accessible, a group of German data centres initiated the project "Publication and Citation of Scientific Data" (STD-DOI) which was funded by the German Science Foundation DFG for the periods 2003-2005 and 2006-2008. In this project the German National Library for Science and Technology (TIB Hannover), together with the German Research Centre for Geoscience (GFZ Potsdam), Alfred Wegener Institute for Polar and Marine Research (AWI) Bremerhaven, University of Bremen, the Max Planck Institute for Meteorology in Hamburg, and the DLR German Remote Sensing Data Center set up the first system to assign DOIs to data sets and for their publication. A prerequisite for data to be made available is a proper citation. This means that all fields mandatory for a bibliographic citation are included. In addition, a mechanism is needed that ensures that the location of the referenced data on the internet can be resolved at any time. In the past, this was a problematic issue because URLs are short-lived, many becoming invalid after only a few months. Data publication on the internet therefore needs a system of reliable pointers to a web publication to make these publications citeable. To achieve this persistence of identifiers for their conventional publications many scientific publishers use Digital Object Identifiers (DOI). The identifier is resolved through the handle system to the valid location (URL) where the dataset can be found. This approach meets one of the prerequisites for citeability of scientific data published online. In addition, the valid bibliographic citation can be included in the catalogues of German National Library of Science and Technology (TIB). The data publications themselves are held at discipline specific data centres, for instance ICSU World Data Centers. The data providers take on the role of publication agents and are responsible for the long-term availability of the data. The discipline specific publication agents are also responsible for the quality of the published data. Syntactic and semantic quality checks are used to secure data quality. Data may come as data supplements to scientific papers, or as time series from environmental monitoring systems, or as novel form of publication in a data journal. The latter requires a peer-review process, analogous to conventional science publications.

UR: <http://www.std-doi.de>

DE: 6620 Science policy (0485)

DE: 9800 GENERAL OR MISCELLANEOUS

DE: 9810 New fields (not classifiable under other headings)

DE: 9820 Techniques applicable in three or more fields

SC: Union [U]

MN: 2008 Fall Meeting

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