

# Using Other Identifiers

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Office of Scientific and Technical Information



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# Persistent Identifier Services

## Crossref – Became members in 2004

- Assign Crossref DOIs to DOE-funded technical reports
- Crossref Funder Registry – DOIs for funders (includes hierarchies)
- Exploring service for DOIs for awards/grants



## DataCite – Became members in 2010

- Assign DataCite DOIs to datasets – DOE Data ID Service and the Interagency Data ID Service
- 2017- began assigning DataCite DOIs to software through DOE CODE



## ORCID – Became members in 2013

- OSTI began collecting ORCIDs associated with authors in E-Link submissions
- 2016 – ORCID integration in OSTI.GOV (pre-2018 SciTech Connect) allowing author claiming of records in OSTI.GOV and adding to their ORCID record
- 2020 DOE ORCID Consortium



## Research Organization Registry (ROR)

- Persistent identifiers for organizations
- OSTI has organization authority - potential to match OSTI authority to ROR
- May connect with Crossref Funder Registry in future (ROR matched to Funder DOIs)



# Current Service – DataCite DOIs for Software

**DOE CODE** U.S. Department of Energy  
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### Submit a New Software Project

More detailed information on this process can be found on our Help page

Repository Information (Fields Required) >

Product Description (Fields Required) >

Developers (Fields Required) >

DOI and Release Date v

DOI (Optional Field) ⓘ

[Reserve DOI](#)

Release Date (Optional Field) ⓘ

[Show Additional Optional Fields](#) [Save Your Progress](#) [Submit Project](#)

## Submitting Software

- Minimal set of metadata required
- Codes in early development
- **Option to obtain a DOI**

## Announcing Software

- Ensures announcement and dissemination in accordance with DOE statutory responsibilities
- Codes in later stages of development
- **DOI assigned and register** (if software doesn't already have DOI)



# Current Service – Crossref DOIs for Tech Reports



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## United States Department of Energy Energy Link System (E-Link) DOE STI Management System

- 1. Product Description
- 2. Product Type Info
- 3. Authors
- 4. Content
- 5. Related Documents
- 6. Contact Info
- 7. Upload/Link
- 8. Certifications
- 9. Summary

**Submission of USDOE Scientific and Technical Information  
(Step-by-step version of Announcement Notice 241.3)**  
(For use by Financial Assistance Recipients and Non-Major Site/Facility Management Contractors to submit Final Technical Reports, Accepted Manuscripts of Journal Articles, Conference Papers, and other STI products under an award; reference other [Submission Options](#) for Software and Datasets)

**\* DOE Award/Contract Number ?**  
DE-  Must be entered before rest of AN can be completed

**Other Identifying Numbers ?**  
 Enter other numbers that may aid in online retrieval

**\* Recipient/Contractor (Organization) ?**

**\* STI Product Type ?**

**\* Intellectual Property/Distribution Limitations ?**  
  
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# Current Service - ORCID iD Integrations

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## Sign In

If you already have an OSTI.GOV or DOE PAGES account, enter your email address and password below to sign in. OSTI has recently added new features for members of the DOE community that may be activated with some additional account information. When signed in, please visit your account management screen to ensure that your account information is complete and up-to-date. You may view saved searches, export bibliographies and create content alerts from your account management screen. Your current login credentials may be used across OSTI discovery tools.

Email Address:  (required)

Password:  (required)

[Forgot Password?](#) [Create Account](#) [Sign In](#)

## ORCID Account Integration

ORCID provides a persistent digital identifier that distinguishes you from every other researcher and, through integration in key research workflows such as manuscript and grant submission, supports automated linkages between you and your professional activities ensuring that your work is recognized. [Find out more.](#)

If you have an ORCID ID, you have everything you need to authorize OSTI.GOV to add items to your ORCID Works. Once authorized, you will be able to browse OSTI.GOV search results for your documents and add them directly to your ORCID Works information.

You also have the option to authorize OSTI, if any records are submitted to OSTI via E-Link with your ORCID identification number, to automatically add them to your ORCID Works. To ensure you benefit from this service, please leave the authorization selection box *checked* on your ORCID account.

For more detailed information, please view our [ORCID FAQ](#).

[Create or connect your ORCID iD](#)

ORCID is an independent non-profit effort to provide an open registry of unique researcher identifiers and open services to link research activities and organizations to these identifiers. [Learn more at orcid.org.](#)

**ORCID** | Member Organization  
Connecting Research and Researchers

ORCID - Google Chrome

https://orcid.org/signin?oauth&client\_id=APP-RCMLGPIHPJA5Z6ML...

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OSTI.GOV / Search for All Records / Page 1 of 304,870

## 3,048,691 Search Results

Sorted by Relevance Save Results < Prev ... Next

SEARCH FOR: All Records

REFINE BY:

RESOURCE TYPE

- Journal Article
- Technical Report
- Data
- Software
- Patent
- more

AVAILABILITY

- Full Text / Resource Available
- Citation Only

PUBLICATION DATE

AUTHOR / CONTRIBUTOR

- Persson, Kristin (70,161)
- Wang, J. (2,488)
- Zhang, J. (2,475)
- Chen, Y. (2,193)
- Wang, H. (1,980)
- more

RESEARCH ORGANIZATION

- ### H2O195: A Stand-Alone Fortran Code for Evaluating the IAPWS-95 Equation-of-State Model for Water

Wolery, Thomas J. ; USDOE National Nuclear Security Administration

H2O195 is a stand-alone Fortran code for evaluating the IAPWS-95 equation-of-state model (Wagner and Pruss, 2002) for the thermodynamic properties of water. It further evaluates the corresponding thermochemical properties of water consistent with the CODATA recommendations (Cox et al., 1989). The IAPWS-95 model is based on a model equation for the dimensionless Helmholtz energy for which the primary variables are the inverse reduced temperature and reduced density. Here is the absolute temperature (K), is density (kg/m3), and the subscript refers to the critical point of water (647.096 K and 22.064 MPa pressure in this model, for which is 322 kg/m3). [more »](#)

DOI: 10.11578/dc.20190408.2 View Software

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- ### On the modeling and agent-based simulation of a cooperative anagram game

Hu, Zhihao ; Ren, Yihui

Anagram games (i.e., word construction games in which players use letters to form words) have been researched for some 60 years. Games with individual players are the subject of over 20 peer-reviewed investigations. Moreover, there are many popular commercial anagram games such as Scrabble. The cooperative team play of anagram games has been studied experimentally. With all of this experimental work and the popularity of such games, it is somewhat surprising that very little modeling of anagram games has been done to predict player behavior/actions in them. We devise a cooperative group anagram game and develop an agent-based modeling and simulation. [more »](#)

[Full Text Available](#)

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- ### Electronics Systems for the Gamma Ray Energy Tracking Nuclear Array (GRETA)

Anderson, John ; Campbell, Christopher ; Carpenter, Michael ; ...

**Add this item to your ORCID Works?**

H2O195: A Stand-Alone Fortran Code for Evaluating the IAPWS-95 Equation-of-State Model for Water (OSTI ID 1505571)

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OSTI.GOV / Search for 1226906 / Journal Article: Nudged-elastic band method with two climbing images: Finding transition states in complex energy landscapes

## Nudged-elastic band method with two climbing images: Finding transition states in complex energy landscapes

Full Record References (10) Cited by (14) Reference / Citation Traversal Other Related Research

**JOURNAL ARTICLE:**

Free Publicly Available Full Text

Accepted Manuscript (Publisher)

Accepted Manuscript (DOE)

Publisher's Version of Record  
DOI: 10.1063/1.4905209

Copyright Statement

OTHER AVAILABILITY

Search WorldCat to find libraries that may hold this journal

**CITATION METRICS:**

Cited by:	14
Impact Factor:	2.843
Citation Impact by Journal:	2.06
Citation Impact by Field:	1.53
% Rank by Field / Year:	13.16

Citation information provided by Web of Science

### Abstract

The nudged-elastic band (NEB) method is modified with concomitant two climbing images (C2-NEB) to find a transition state (TS) in complex energy landscapes, such as those with a serpentine minimal energy path (MEP). If a single climbing image (C1-NEB) successfully finds the TS, then C2-NEB finds it too. Improved stability of C2-NEB makes it suitable for more complex cases, where C1-NEB misses the TS because the MEP and NEB directions near the saddle point are different. Generally, C2-NEB not only finds the TS, but guarantees, by construction, that the climbing images approach it from the opposite sides along the MEP. In addition, C2-NEB provides an accuracy estimate from the three images: the highest-energy one and its climbing neighbors. C2-NEB is suitable for fixed-cell NEB and the generalized solid-state NEB.

Authors: Zarkevich, Nikolai A. <sup>[1]</sup>; Johnson, Duane D. <sup>[2]</sup>

+ Show Author Affiliations

Publication Date: 2015-01-09

Research Org.: Ames Laboratory (AMES), Ames, IA (United States)

Sponsoring Org.: USDOE

OSTI Identifier: 1226906

Alternate Identifier(s): OSTI ID: 1228479

Report Number(s): IS-J 8516



# Current Service - ORCID iD Integrations

The screenshot shows a web application interface for managing authors. A modal window titled "Manage Author" is open, displaying a form with the following fields:

- \* First Name:** [Text input field]
- Middle Name:** [Text input field]
- \* Last Name:** [Text input field]
- E-mail:** [Text input field]
- ORCID iD:** [Text input field]
- Affiliation:** [Text input field] with an **Add** button to its right.
- Primary:** [Checkbox]

Below the ORCID iD field, there is a note: "To request an ORCID® identifier (ORCID iD) or learn more about ORCID iDs, please [click here](#)." Below the Affiliation field is a large text area for additional information.

At the bottom of the modal is a **Save and Close** button. The background shows a sidebar with navigation options: 1. Product Description, 2. Product Type Information, 3. Authors (highlighted), 4. Content, 5. Related Documents, 6. Contact Information, 7. Upload/Link, 8. Certifications, and 9. Summary. At the bottom of the page, there are buttons for **Start Over**, **Previous**, and **Next**.



# Future Service – DOE ORCID Consortium

- Other DOE organizations have realized the value of using, collecting, and integrating ORCID iDs and ORCID API services into their information workflows.
- DOE laboratories, user facilities, and laboratory libraries collect and use ORCID iDs to track research outputs and awards, determine the impact of user facilities, and evaluate the outcomes of outreach efforts.
- Because of this increased involvement from across the complex, ORCID suggested that DOE consider a consortium membership. A DOE ORCID Consortium membership could decrease costs, increase benefits for DOE overall, and result in more streamlined administrative and technical support.



## ORCID Account Integration

ORCID provides a persistent digital identifier that distinguishes you from every other researcher and, through integration in key research workflows such as manuscript and grant submission, supports automated linkages between you and your professional activities ensuring that your work is recognized. [Find out more.](#)

If you have an ORCID ID, you have everything you need to authorize OSTI.GOV to add items to your ORCID Works. Once authorized, you will be able to browse OSTI.GOV search results for your documents and add them directly to your ORCID Works information.

You also have the option to authorize OSTI, if any records are submitted to OSTI via E-Link with your ORCID identification number, to automatically add them to your ORCID Works. To ensure you benefit from this service, please leave the authorization selection box *checked* on your ORCID account.

For more detailed information, please view our [ORCID FAQ](#).

 Create or connect your ORCID ID



# Future Service – DOE ORCID Consortium

## The Consortium Lead

DOE OSTI will be the DOE ORCID Consortium Lead. Responsibilities include:

- providing administrative support to the Consortium;
- managing and supporting the on boarding of Consortium members;
- serving as the central technical support contact to all members; and
- maintaining Consortium and technical documentation.

## Consortium Benefits

- Community of Practice - share best practices, use cases, discuss challenges, raise ORCID awareness across the complex, share ORCID integration ideas, identify cross facility/office collaborations, and more.
- Full features of premium ORCID membership for a substantially reduced fee.
- 5 API keys (instead of 1 API key included in the basic membership) – allows large labs or organizations the ability to integrate with multiple systems.
- Update notifications (webhooks) – allows for API-based notifications when changes are made to ORCID records for iDs embedded in member system(s). Allows for real-time pull of information included in ORCID profiles.
- Monthly analytics reports – which allows for more frequent personalized reports for each API key. Basic membership only provides general reports twice annually.
- Additional webinar-style orientation meetings / support calls with ORCID to aid in integration and development.

## Consortium Membership Fees

Yearly Fees:

5-9 members:	US\$5,150 per member*
10-19 members:	US\$5,000 per member
20-34 members:	US\$4,000 per member
35-60 members:	US\$3,500 per member
61+ members:	US\$3,000 per member



# Service Exploration – Crossref Grant DOIs

## New “Grant ID Service” from Crossref

- New metadata schema specifically for grants/awards/awarded time
  - [https://www.crossref.org/schemas/grant\\_id0.0.1.xsd](https://www.crossref.org/schemas/grant_id0.0.1.xsd)
- Benefits – track research impact and create links from awards to research outputs
  - Used in acknowledgement sections of publications – give global intelligence to award number
  - Used to create links to data and software using related identifier metadata field
  - Assigning a DOI requires a metadata landing page
- Different from Crossref Funder Registry – Grant ID Service assigns DOIs at a lower level (award/grant vs. funding organization)
- Potential DOE use cases:
  - User Facilities – Awarded Time
  - National Labs – LDRD
  - Program Offices – Grants/Awards
- Exploring providing this as a new service – separate from Data ID Service, DOIs for Technical Reports and DOIs for software
  - New, different metadata schema
  - Outside of E-Link



# Workshop Discussion Questions

- Are other identifiers already being used?
- Are you interested in DOIs for other research outputs?
- Do you have questions about getting DOIs for software?
- Are you using ORCIDs – personally or at the lab? Do you have or have you seen ORCID system integrations?
- Do you have interest in learning more about Research Organization identifiers?

