

Connecting research with the PID Graph

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13 December 2022

e-IRG Workshop

4. Session "Interlinking - interaction between data, publications and PIDs"

<https://doi.org/10.5281/zenodo.7431525>



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PIDs for places, people, and things

**PIDs for people (researchers)
include ISNIs and ORCID iDs**



<https://orcid.org/0000-0001-6622-4910>



**PIDs for institutions (research
organizations) including ROR**



<https://ror.org/01y2jtd41>



**PIDs for things (research outputs) include
DOIs, handles, IGSNs, ARKs, and more**

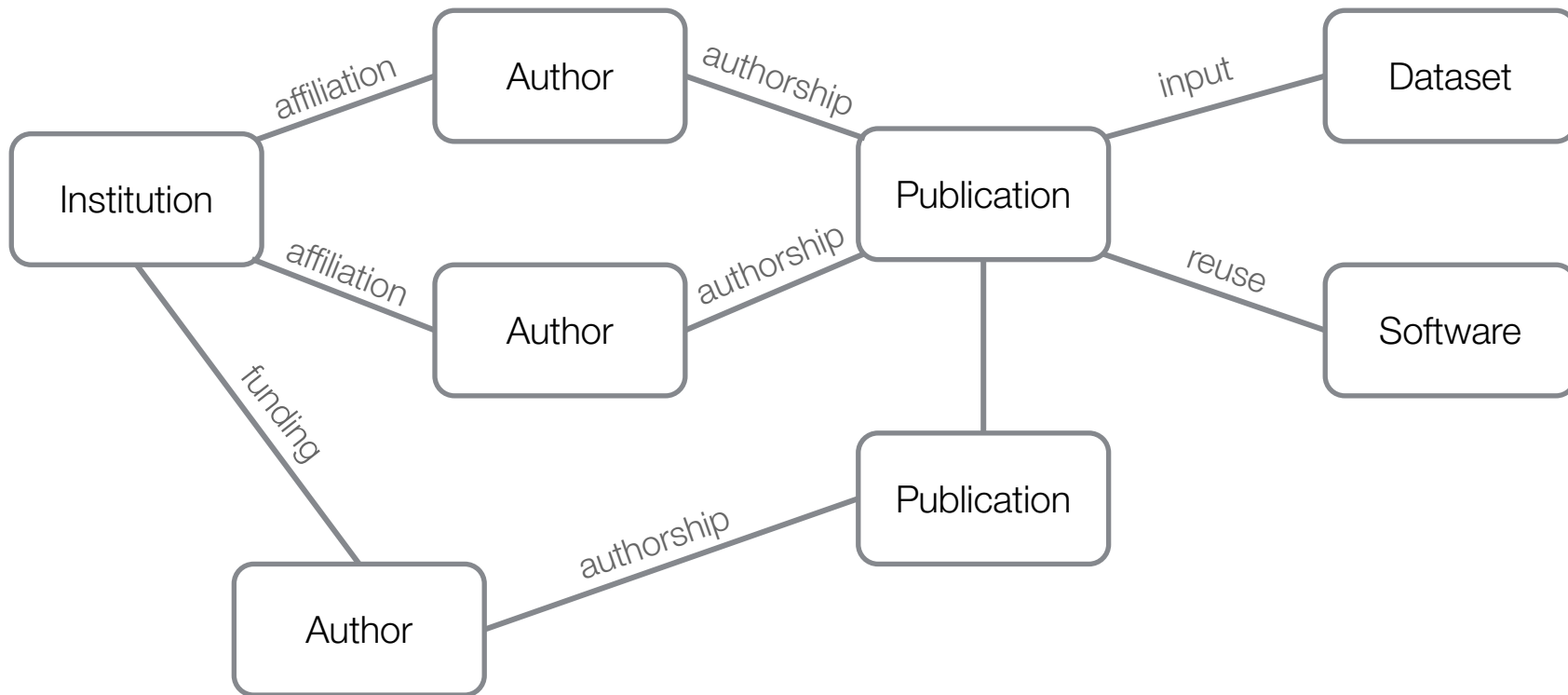


<https://doi.org/10.5061/dryad.708gr>



“.....PIDs (and the associated metadata) are an essential component for the implementation of the FAIR principles.”

Research is already a graph

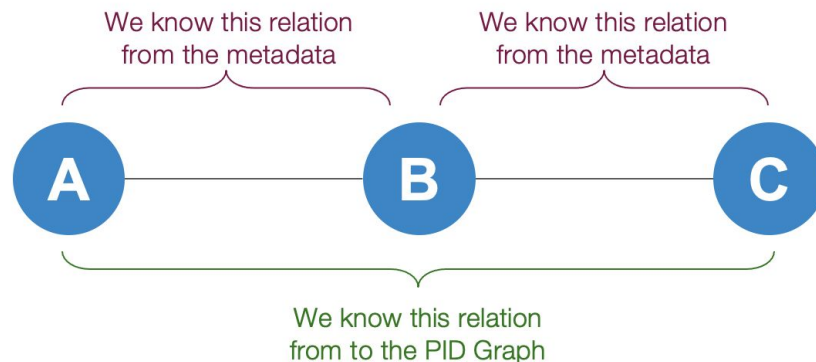


The PID Graph

Having unique persistent identifiers for researchers and their outputs is crucial to connecting pieces of the research landscape together.

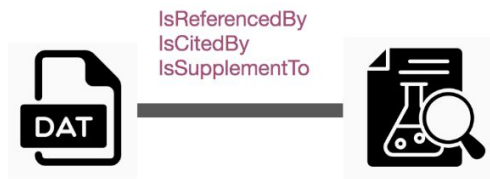
PIDs already have the potential to enable the connected research graph, but we're not yet taking full advantage of their connecting powers.

We can now clearly link PIDs together via relations in their metadata to enable the discovery of connections at least two "hops" away



Relational metadata

Citations



References



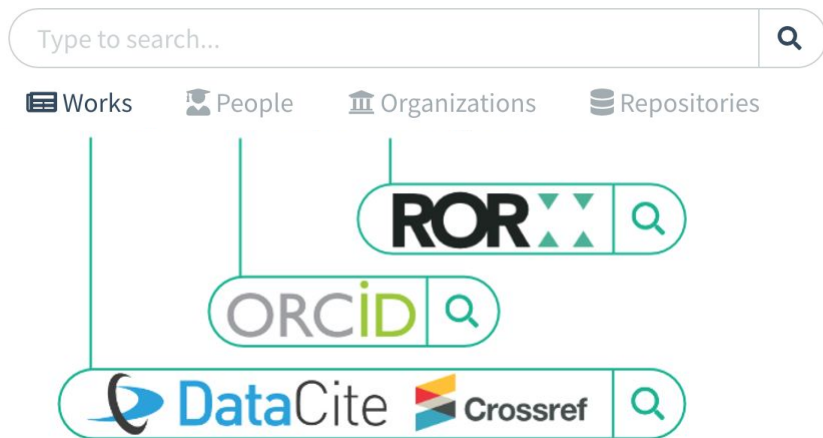
Relations

IsContinuedBy
Continues
IsDescribedBy
Describes
HasMetadata
IsMetadataFor
HasVersion IsVersionOf
IsNewVersionOf
IsPreviousVersionOf
IsPartOf
HasPart
IsDocumentedBy
Documents
IsCompiledBy
Compiles
IsVariantFormOf
IsOriginalFormOf
IsIdenticalTo
IsReviewedBy Reviews
IsDerivedFrom
IsSourceOf
IsRequiredBy Requires
IsObsoletedBy
Obsoletes

Find and Connect Research

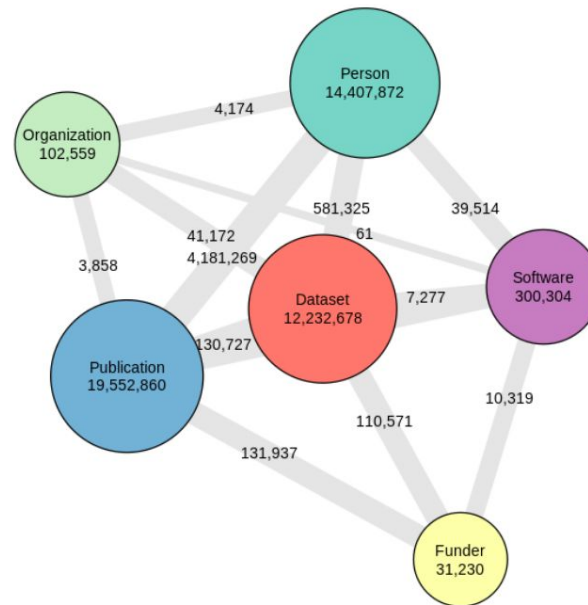


Find Research with DataCite Commons



PID Graph

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comparative analysis of the S-locus and nuclear SSR

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Kato Shuri, Teruyoshi Nagamitsu, Hiroyoshi Iwata, Yoshihiko Tsumura, Yuzuru Mukai, K Michiharu, K Saika & K Junko
Version 1 of Dataset published 2012 in [DRYAD](#)

Mating processes of local demes and spatial genetic structure of island populations at the self-incompatibility (S-) locus under negative frequency-dependent selection (NFDS) were evaluated in *Prunus lannesiana* var. *speciosa* in comparison with nuclear simple sequence repeat (SSR) loci that seemed to be evolutionarily neutral. Our observations of local mating patterns indicated that male-female pair fecundity was influenced by not only self-incompatibility, but also various factors such as kinship, pollen production and flowering synchrony. In spite of the mating bias caused by these factors, the NFDS effect on changes in allele frequencies from potential mates to mating pollen was detected at the S-locus but not at the SSR loci although the changes from adult to juvenile cohorts were not apparent at any loci. Genetic differentiation and isolation-by-distance over various spatial scales were smaller at the S-locus than at the SSR loci, as expected under the NFDS. All ele sharing distributions among the populations also had a unimodal pattern at the S-locus, indicating the NFDS effect except for alleles unique to individual populations probably due to isolation among islands, although this pattern was not exhibited by the SSR loci. Our results suggest that the NFDS at the S-locus has an impact on both the mating patterns and the genetic structure in the *P. lannesiana* populations studied.

DOI registered April 17, 2012 via DataCite.



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Cited dataset

Data from: Impact of negative frequency-dependent selection on mating pattern and genetic structure: a comparative analysis of the S-locus and nuclear SSR loci in *Prunus lannesiana* var. *speciosa*

Kato Shuri, Teruyoshi Nagamitsu, Hiroyoshi Iwata, Yoshihiko Tsumura, Yuzuru Mukai, K Michiharu, K Saika & K Junko
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Dataset

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Surfacing the citation

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Impact of negative frequency-dependent selection on mating pattern and genetic structure: a comparative analysis of the S-locus and nuclear SSR loci in *Prunus lannesiana* var. *speciosa*

K Shuri, K Saika, K Junko, K Michiharu, T Nagamitsu, H Iwata, Y Tsumura & Y Mukai

Journal Article published 2012 in [Heredity](#)

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Supporting recognition

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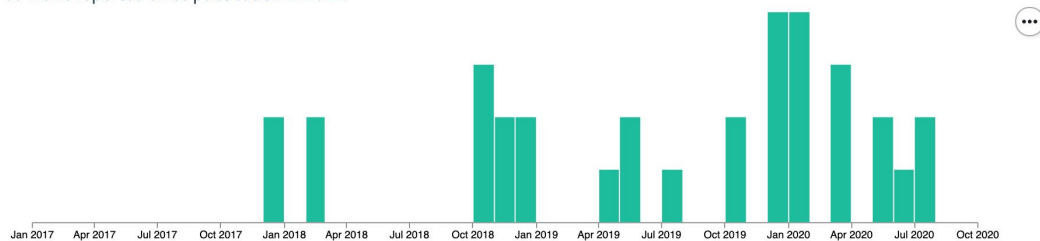
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Kyoto University

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Shelley Stall

Shelley Stall is the Senior Director for the American Geophysical Union's Data Leadership Program. She works with AGU's members, their organizations, and the broader research community to improve data and digital object practices with the ultimate goal of elevating how research data is managed and valued. Better data management results in better science. Shelley's diverse experience working as a program and project manager, software architect, database architect, performance and optimization analyst, data product provider, and data integration architect for international communities, both nonprofit and commercial, provides her with a core capability to guide development of practical and sustainable data policies and practices ready for adoption and adapting by the broad research community. Shelley's recent work includes the Enabling FAIR Data Project (<https://copdess.org/enabling-fair-data-project/>) engaging over 300 stakeholders in the Earth, space, and environmental sciences to make data open and FAIR targeting the publishing and repository communities to change practices by no longer archiving data in the supplemental information of a paper but instead depositing the data supporting the research into a trusted repository where it can be discovered, managed, and preserved.

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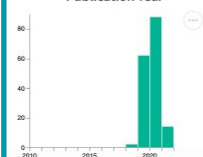
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EOSC PID Graph



PIDGraph
EOSC PID Graph

Services for providing access to the PID Graph, which is made up of links and records gathered from persistent identifier (PID) authority data sources. PID metadata access APIs, software components supporting Open Science graph interoperability (sharing of graph data), and extension of the authoritative sources enabling links between PID entities are some of the services that will be provided.

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1. Use PIDs for all entities
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