# Peer Community In... A free recommendation process of preprints based on peer reviews

Denis Bourguet, Benoit Facon, Thomas Guillemaud, Marjolaine Hamelin, Christian Mougin, Wilfried Sanchez, Pierre Labadie

# Peer Community In...

Denis Bourguet
Benoit Facon
Thomas Guillemaud
Marjolaine Hamelin

INRAE

And
Christian Mougin
Wilfried Sanchez
Pierre Labadie

## A free recommendation process of preprints based on peer reviews



Ifremer

cnrs

PCI

# Scientific Publication

- **facing reproducibility issue**
- **too long**
- **not transparent**
- **too expensive**

  €10 Billion / 3 millions articles = €3000 / article

  extraordinary profit margin (30-40% for the 5 big publishers)
- **vicious**

  turnover positively linked to the number of accepted articles

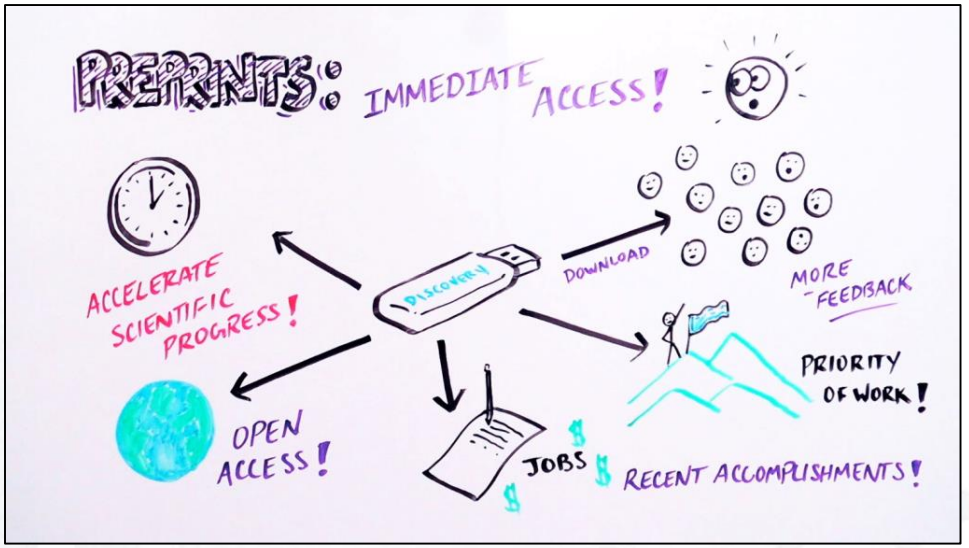
https://peercommunityin.org, @PeerCommunityIn

PCI

# Preprints: the solution?

## Preprints are good...

- Low cost
- Free for authors and readers
- Available immediately
- Archive
- Proof of anteriority
- Searchable/Findable

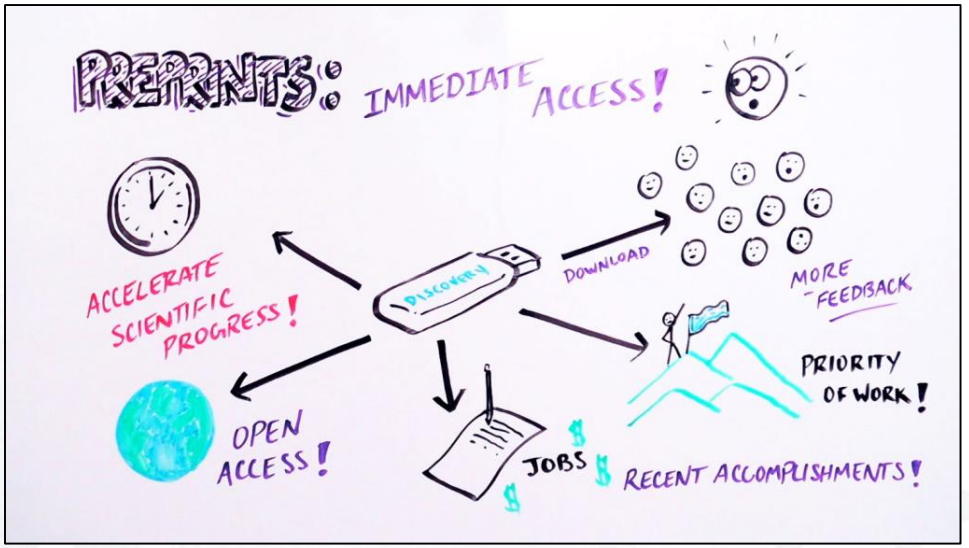



## But putative quality problem...

- No formal evaluation – no peer-review
- Everything can be found in open archives including preprints of very bad quality

## Preprints are good...

- Low cost
- Free for authors and readers
- Available immediately
- Archive
- Proof of anteriority
- Searchable/Findable




## But putative quality problem...

- No formal evaluation – no peer-review
- Everything can be found in open archives including preprints of very bad quality

## We therefore need preprint evaluation

# The Peer Community in initiative

# The aim of PCI

**Communities of researchers** handling the **evaluation** of (through peer review) and **recommending preprints** in their scientific field.

bioRxiv

arXiv.org

zenodo

HAL archives-ouvertes.fr

OSF PREPRINTS

etc …

*PCI Ecology*

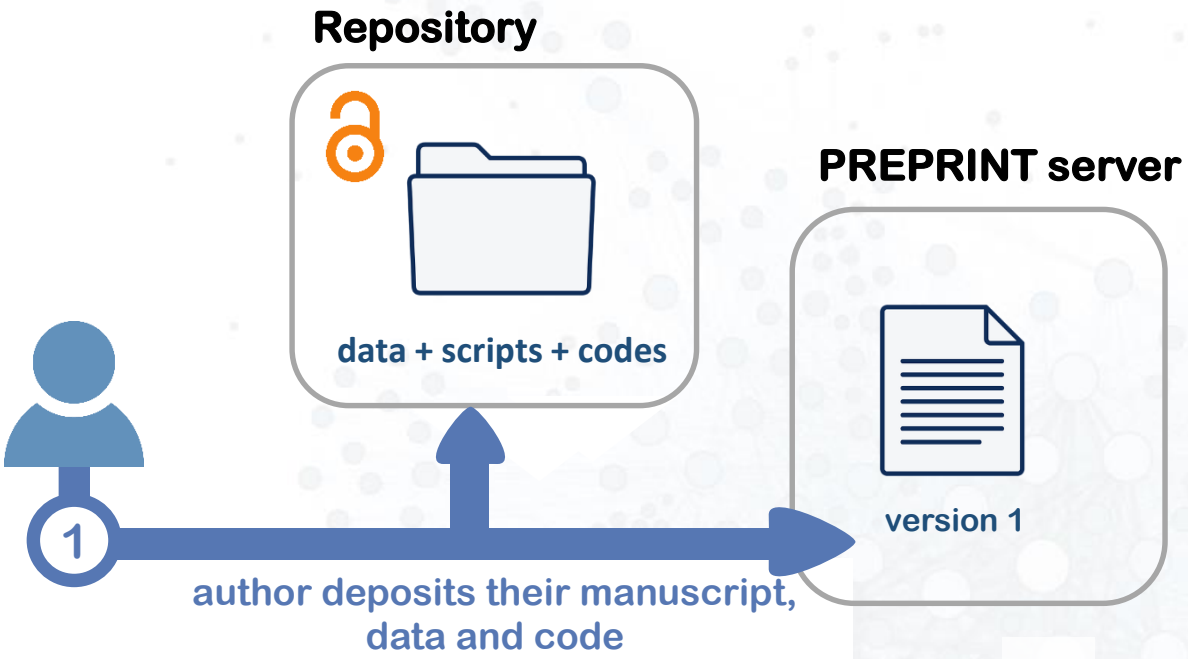
*PCI Evolutionary Biology*

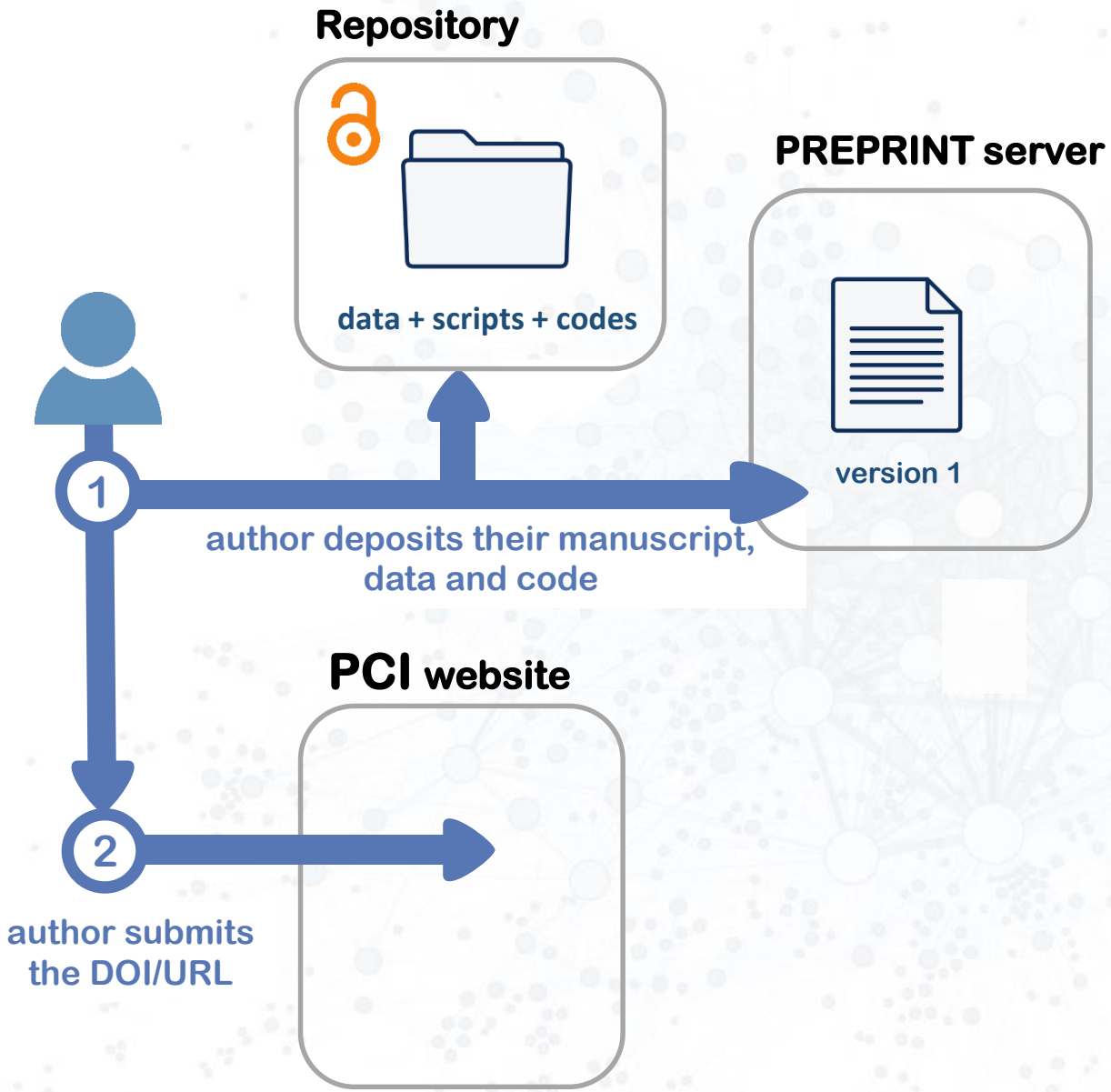
*PCI Genomics*

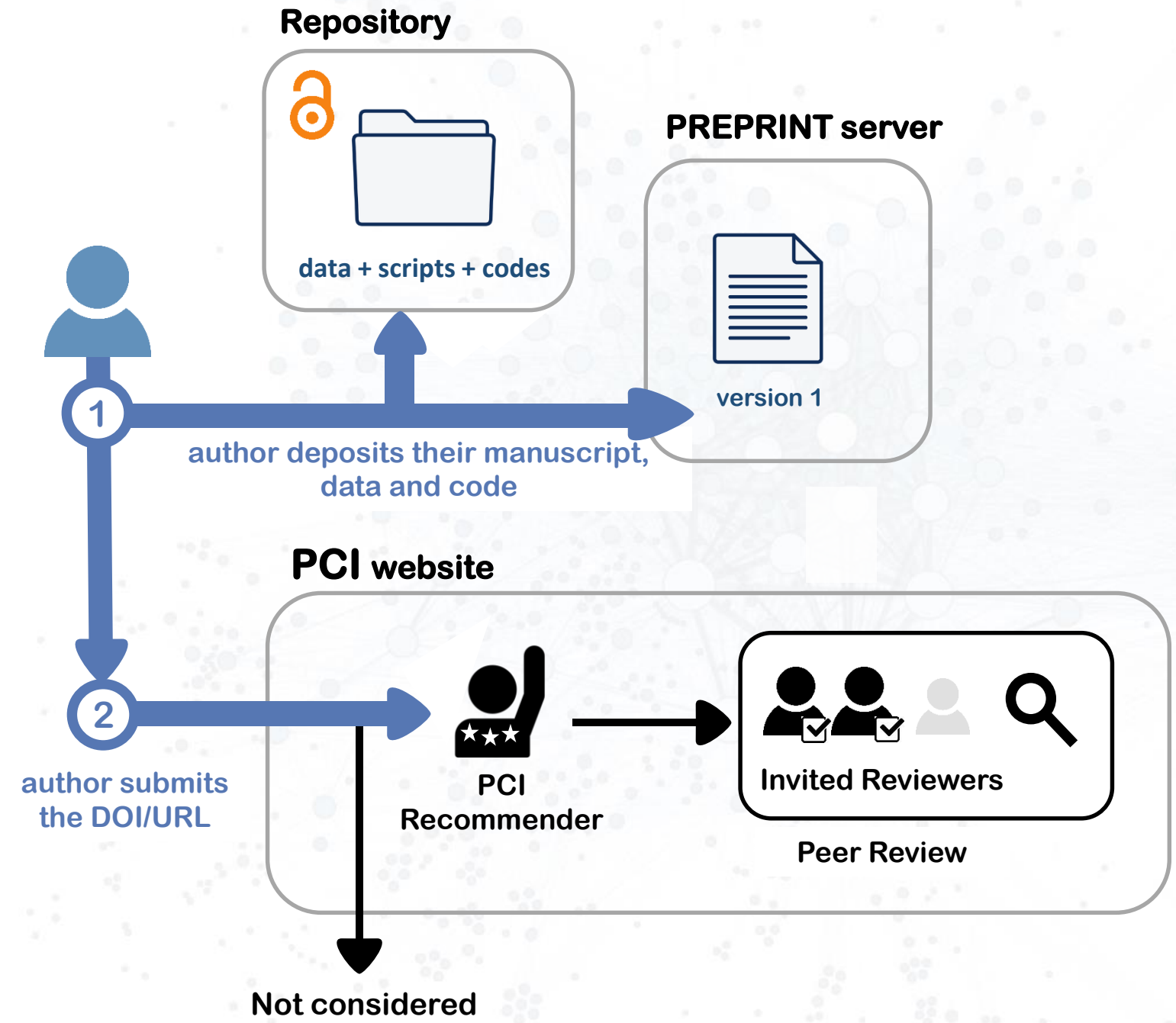
etc..

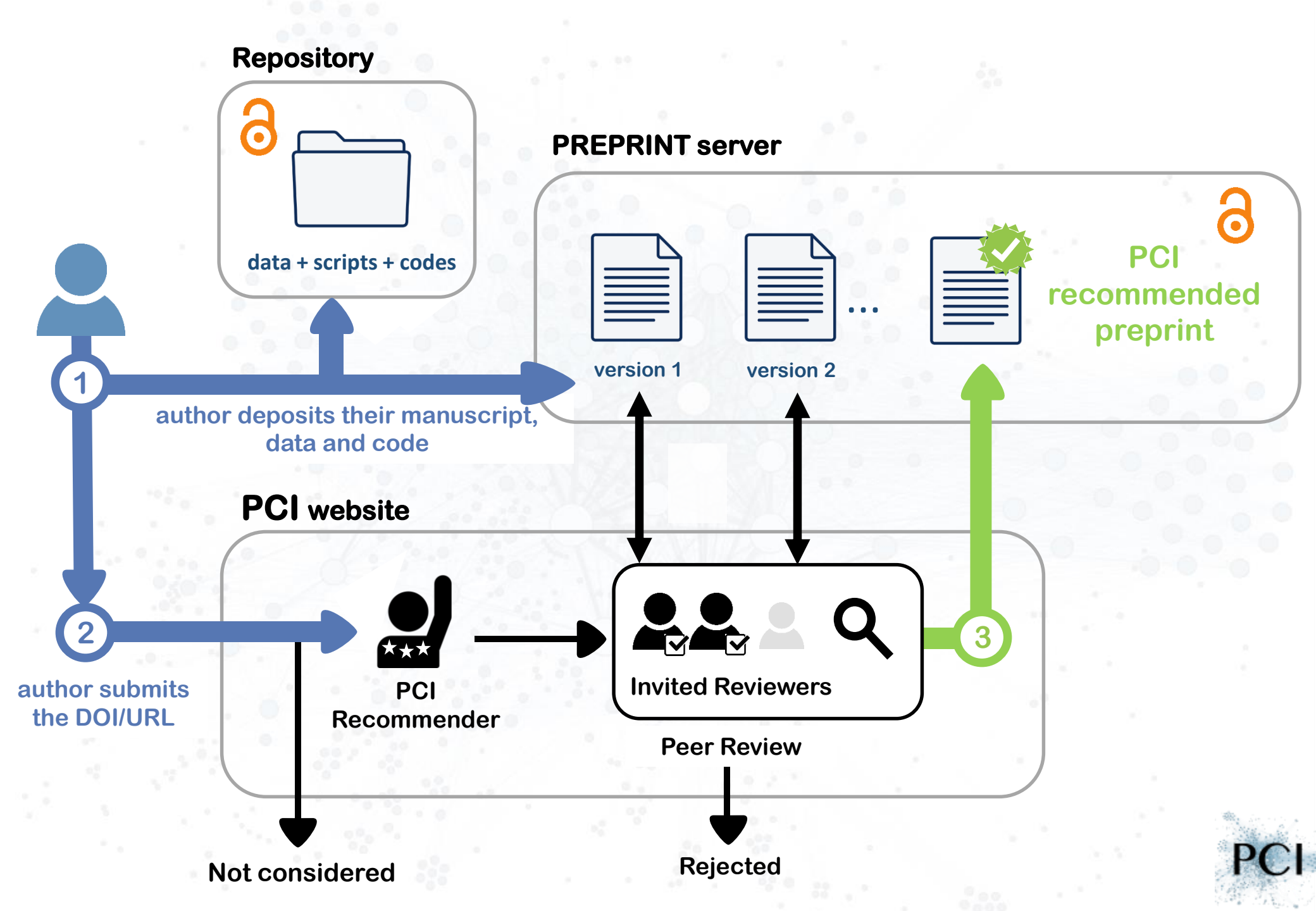
PCI

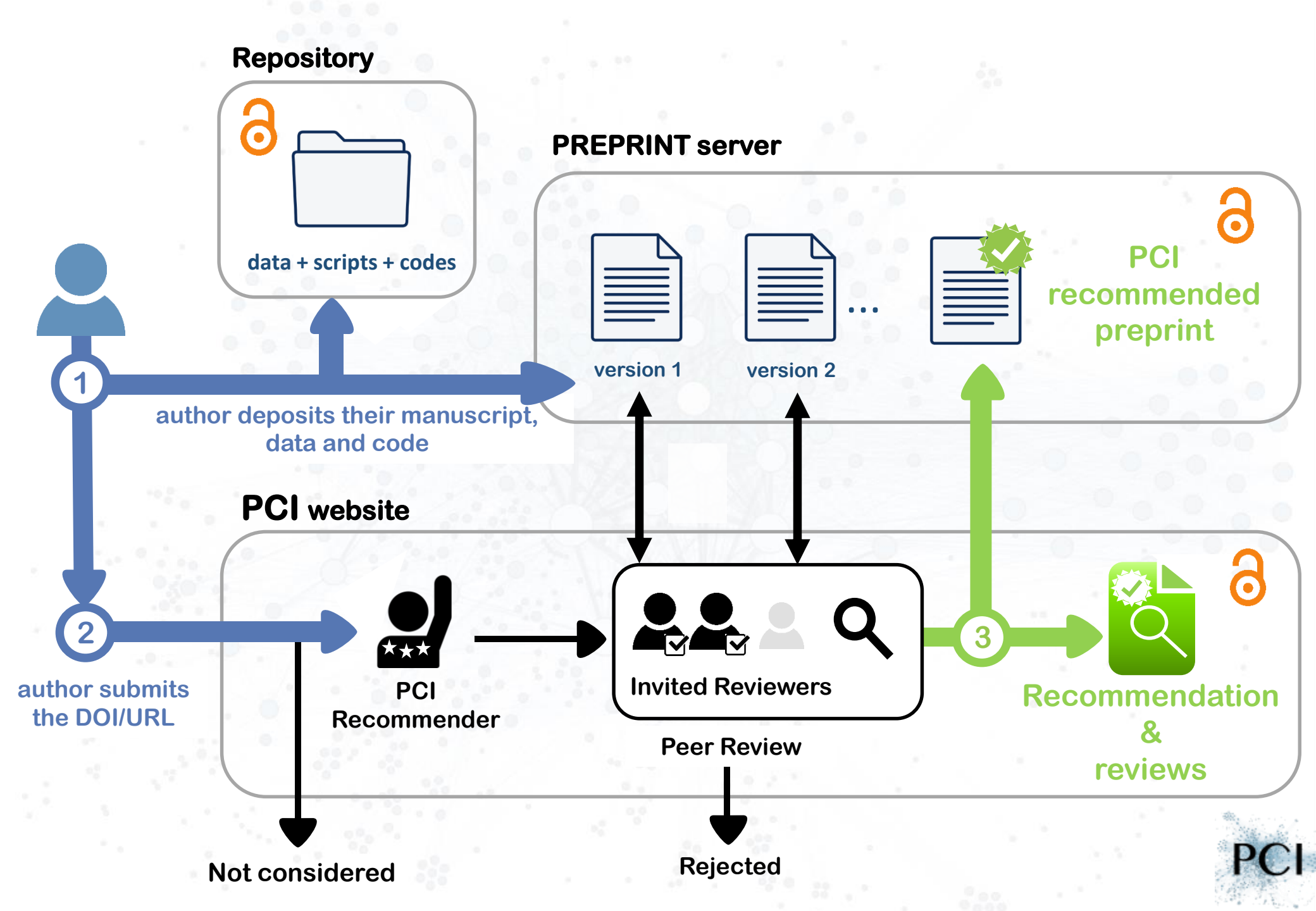
# How does it work?


Repository
data + scripts + codes
PREPRINT server
version 1
1
author deposits their manuscript,
data and code


Repository
data + scripts + codes
PREPRINT server
version 1
1
author deposits their manuscript, data and code
PCI website
2
author submits the DOI/URL


Repository
data + scripts + codes
PREPRINT server
version 1
1
author deposits their manuscript, data and code
PCI website
2
author submits the DOI/URL
PCI Recommender
Invited Reviewers
Peer Review
Not considered


Repository
data + scripts + codes
PREPRINT server
version 1
version 2
PCI recommended preprint
1
author deposits their manuscript, data and code
PCI website
2
author submits the DOI/URL
PCI Recommender
Invited Reviewers
3
Peer Review
Not considered
Rejected


Repository
data + scripts + codes
PREPRINT server
version 1
version 2
PCI recommended preprint
1
author deposits their manuscript, data and code
PCI website
2
author submits the DOI/URL
PCI Recommender
Invited Reviewers
Peer Review
3
Recommendation & reviews
Not considered
Rejected
PCI

# PCI-recommended preprint

# Recommendation text

Peer Community In Evolutionary Biology

RESEARCH ARTICLE

Open Access
Open Data
Open Code
Open Peer-Review

## Transposable Elements are an evolutionary force shaping genomic plasticity in the parthenogenetic root-knot nematode *Meloidogyne incognita*

Djampa KL Kozlowski[1], Rahim Hassanaly-Goulamhoussen[1], Martine Da Rocha[1], Georgios D Koutsovoulos[1], Marc Bailly-Bechet[1]*, Etienne GJ Danchin[1]*.

[1] Université Côte d'Azur, INRAE, CNRS, ISA – Sophia Antipolis, France
* equal contribution

**Cite as:** Kozlowski DK, Hassanaly-Goulamhoussen R, Da Rocha M, Koutsovoulos GD, Bailly-Bechet M, Danchin EG (2020) Transposable Elements are an evolutionary force shaping genomic plasticity in the parthenogenetic root-knot nematode *Meloidogyne incognita*. bioRxiv, 2020.04.30.069948, ver. 4 peer-reviewed and recommended by PCI Evolutionary Biology. https://doi.org/10.1101/2020.04.30.069948

**Posted:** 03 Aug 2020

**Recommender:** Inés Alvarez

**Reviewers:** Daniel Vitales and two anonymous reviewers

**Correspondence:** etienne.danchin@inrae.fr djampa.kozlowski@outlook.com

This article has been peer-reviewed and recommended by *Peer Community in Evolutionary Biology*
https://doi.org/10.24072/pci.evolbiol.100106

**ABSTRACT**

Despite reproducing without sexual recombination, the root-knot nematode *Meloidogyne incognita* is adaptive and versatile. Indeed, this species displays a global distribution, is able to parasitize a large range of plants and can overcome plant resistance in a few generations. The mechanisms underlying this adaptability without sex remain poorly known and only low variation at the single nucleotide polymorphism level have been observed so far across different geographical isolates with distinct ranges of compatible hosts. Hence, other mechanisms than the accumulation of point mutations are probably involved in the genomic dynamics and plasticity necessary for adaptability. Transposable elements (TEs), by their repetitive nature and mobility, can passively and actively impact the genome dynamics. This is particularly expected in polyploid hybrid genomes such as the one of *M. incognita*. Here, we have annotated the TE content of *M. incognita*, analyzed the statistical properties of this TE content, and used population genomics approach to estimate the mobility of these TEs across 12 geographical isolates, presenting phenotypic variations. The TE content is more abundant in DNA transposons and the distribution of TE copies identity to their consensuses sequence suggests they have been at least recently active. We have identified loci in the genome where the frequencies of presence of a TE showed variations across the different isolates. Compared to the *M. incognita* reference genome, we detected the insertion of some TEs either within genic regions or in the upstream regulatory regions. These predicted TEs insertions might thus have a functional impact. We validated by PCR the insertion of some of these TEs, confirming TE movements probably play a role in the genome plasticity with possible functional impacts.

***Keywords:*** *transposons, genomic plasticity, evolution, agricultural pest, parthenogenesis, hybridization*



PCI Evol Biol

Recommendation

Share Tweet Printable page

## Determinants of population genetic structure in co-occurring freshwater snails

*Trine Bilde and Matteo Fumagalli based on reviews by 3 anonymous reviewers*

A recommendation of:

**Connectivity and selfing drives population genetic structure in a patchy landscape: a comparative approach of four co-occurring freshwater snail species**

Jarne P., Lozano del Campo A., Lamy T., Chapuis E., Dubart M., Segard A., Canard E., Pointier J.-P., David P.

*(2021), HAL, hal-03295242, ver. 4 peer-reviewed and recommended by Peer Community in Evolutionary Biology*
*https://hal.archives-ouvertes.fr/hal-03295242*

Abstract

*Submitted: 11 February 2021, Recommended: 01 September 2021*

### Recommendation

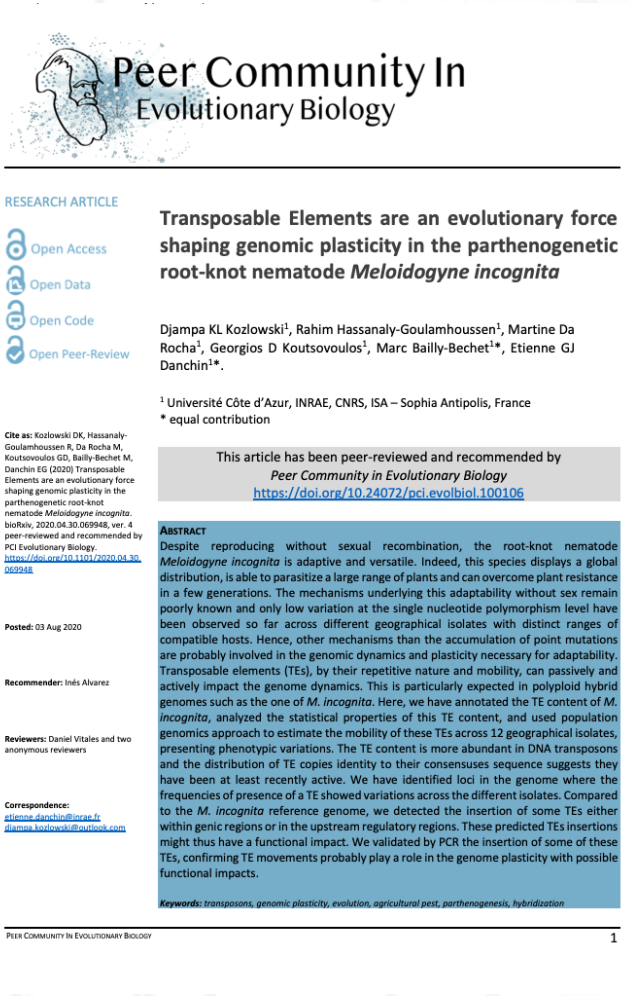
Genetic diversity is a key aspect of biodiversity and has important implications for evolutionary potential and thereby the persistence of species. Improving our understanding of the factors that drive genetic structure within and between populations is, therefore, a long-standing goal in evolutionary biology. However, this is a major challenge,

Open Access
Open Peer-Review
Open Data
Open Code

PCI

# PCI-recommended preprint

# Recommendation text



Peer Community In Evolutionary Biology

RESEARCH ARTICLE

Open Access
Open Data
Open Code
Open Peer-Review

## Transposable Elements are an evolutionary force shaping genomic plasticity in the parthenogenetic root-knot nematode *Meloidogyne incognita*

Djampa KL Kozlowski[1], Rahim Hassanaly-Goulamhoussen[1], Martine Da Rocha[1], Georgios D Koutsovoulos[1], Marc Bailly-Bechet[1]*, Etienne GJ Danchin[1]*.

[1] Université Côte d'Azur, INRAE, CNRS, ISA – Sophia Antipolis, France
* equal contribution

This article has been peer-reviewed and recommended by *Peer Community in Evolutionary Biology*
https://doi.org/10.24072/pci.evolbiol.100106

**ABSTRACT**
Despite reproducing without sexual recombination, the root-knot nematode *Meloidogyne incognita* is adaptive and versatile. Indeed, this species displays a global distribution, is able to parasitize a large range of plants and can overcome plant resistance in a few generations. The mechanisms underlying this adaptability without sex remain poorly known and only low variation at the single nucleotide polymorphism level have been observed so far across different geographical isolates with distinct ranges of compatible hosts. Hence, other mechanisms than the accumulation of point mutations are probably involved in the genomic dynamics and plasticity necessary for adaptability. Transposable elements (TEs), by their repetitive nature and mobility, can passively and actively impact the genome dynamics. This is particularly expected in polyploid hybrid genomes such as the one of *M. incognita*. Here, we have annotated the TE content of *M. incognita*, analyzed the statistical properties of this TE content, and used population genomics approach to estimate the mobility of these TEs across 12 geographical isolates, presenting phenotypic variations. The TE content is more abundant in DNA transposons and the distribution of TE copies identity to their consensuses sequence suggests they have been at least recently active. We have identified loci in the genome where the frequencies of presence of a TE showed variations across the different isolates. Compared to the *M. incognita* reference genome, we detected the insertion of some TEs either within genic regions or in the upstream regulatory regions. These predicted TEs insertions might thus have a functional impact. We validated by PCR the insertion of some of these TEs, confirming TE movements probably play a role in the genome plasticity with possible functional impacts.

***Keywords:*** *transposons, genomic plasticity, evolution, agricultural pest, parthenogenesis, hybridization*

**Cite as:** Kozlowski DK, Hassanaly-Goulamhoussen R, Da Rocha M, Koutsovoulos GD, Bailly-Bechet M, Danchin EG (2020) Transposable Elements are an evolutionary force shaping genomic plasticity in the parthenogenetic root-knot nematode *Meloidogyne incognita*. bioRxiv, 2020.04.30.069948, ver. 4 peer-reviewed and recommended by PCI Evolutionary Biology. https://doi.org/10.1101/2020.04.30.069948

**Posted:** 03 Aug 2020

**Recommender:** Inés Alvarez

**Reviewers:** Daniel Vitales and two anonymous reviewers

**Correspondence:**
etienne.danchin@inrae.fr
djampa.kozlowski@outlook.com



PCI Evol Biol

Recommendation

Share Tweet Printable page

## Determinants of population genetic structure in co-occurring freshwater snails

*Trine Bilde and Matteo Fumagalli based on reviews by 3 anonymous reviewers*

A recommendation of:

**Connectivity and selfing drives population genetic structure in a patchy landscape: a comparative approach of four co-occurring freshwater snail species**

Jarne P., Lozano del Campo A., Lamy T., Chapuis E., Dubart M., Segard A., Canard E., Pointier J.-P., David P.

*(2021), HAL, hal-03295242, ver. 4 peer-reviewed and recommended by Peer Community in Evolutionary Biology*
*https://hal.archives-ouvertes.fr/hal-03295242*

Abstract

*Submitted: 11 February 2021, Recommended: 01 September 2021*

**Recommendation**

Genetic diversity is a key aspect of biodiversity and has important implications for evolutionary potential and thereby the persistence of species. Improving our understanding of the factors that drive genetic structure within and between populations is, therefore, a long-standing goal in evolutionary biology. However, this is a major challenge,

Open Access Open Peer-Review

Open Data Open Code

# Final, valid, findable and citable article

PCI

# Publication of PCI-recommended preprints

PCI-recommended preprint

**Peer Community Journal**

Direct publication in diamond open access

OR

**PCI-friendly** journals

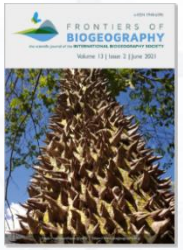
OR

Other journals

# PCI-friendly journals

**3 categories**

1. Accept without further reviews

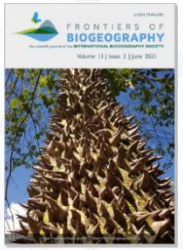



...

# PCI-friendly journals

**3 categories**

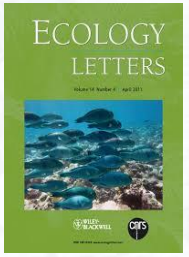
## 1. Accept without further reviews



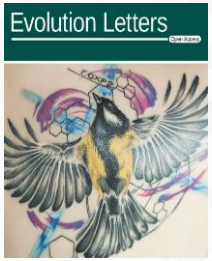

...

## 2. Fast response (≤ 5 days) to presubmission enquiry

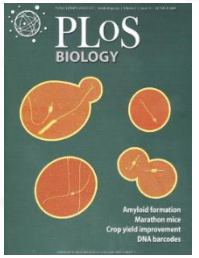
- Accept without further reviews
  OR
- Need further reviews
  OR
- Not interested









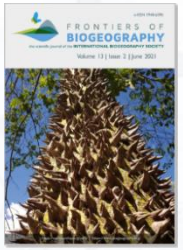




...

# PCI-friendly journals

**3 categories**

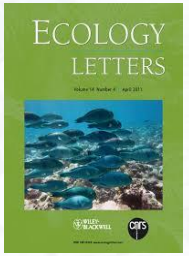
1. Accept without further reviews



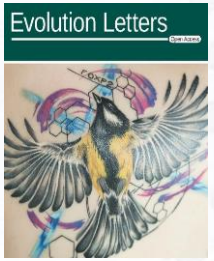

...

2. Fast response (≤ 5 days) to presubmission enquiry

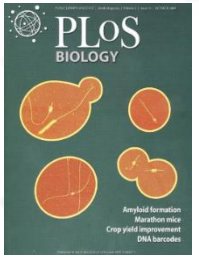
- Accept without further reviews
  OR
- Need further reviews
  OR
- Not interested










...

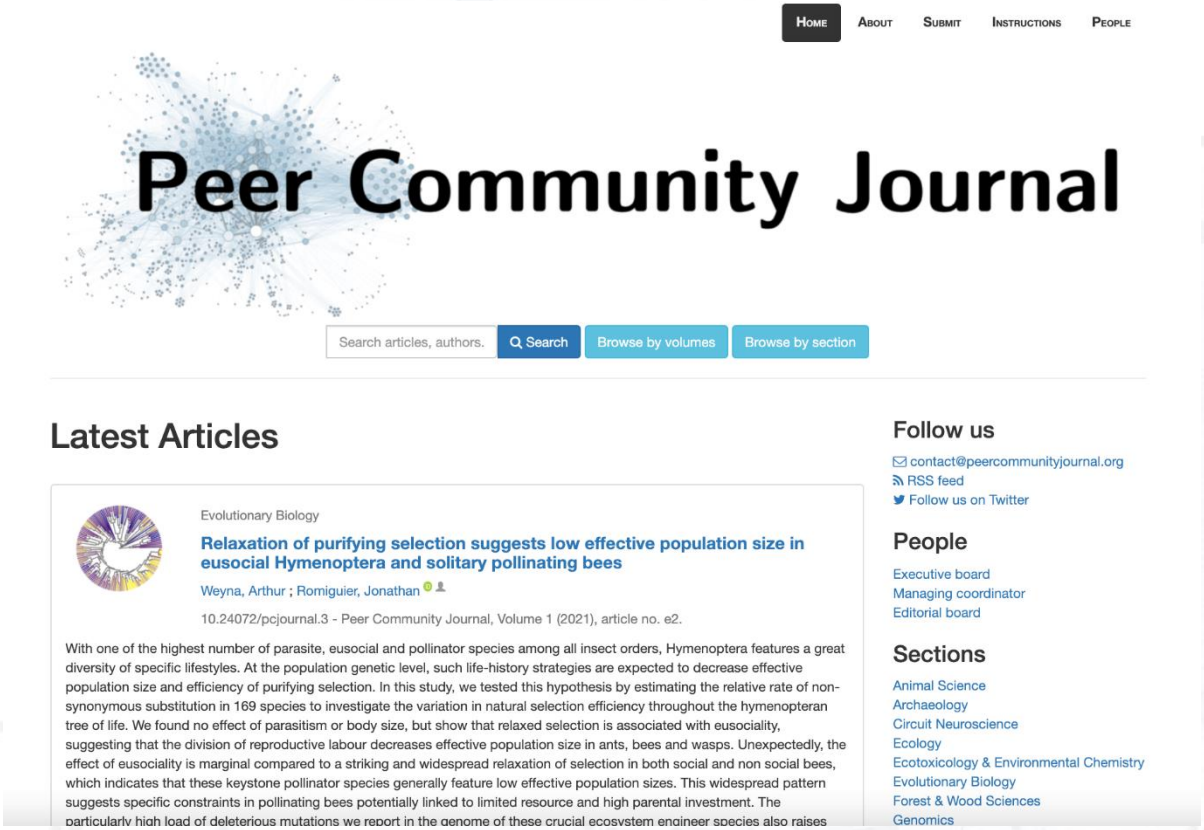
3. May use the evaluations of PCI if adequate

eLife ...

PCI

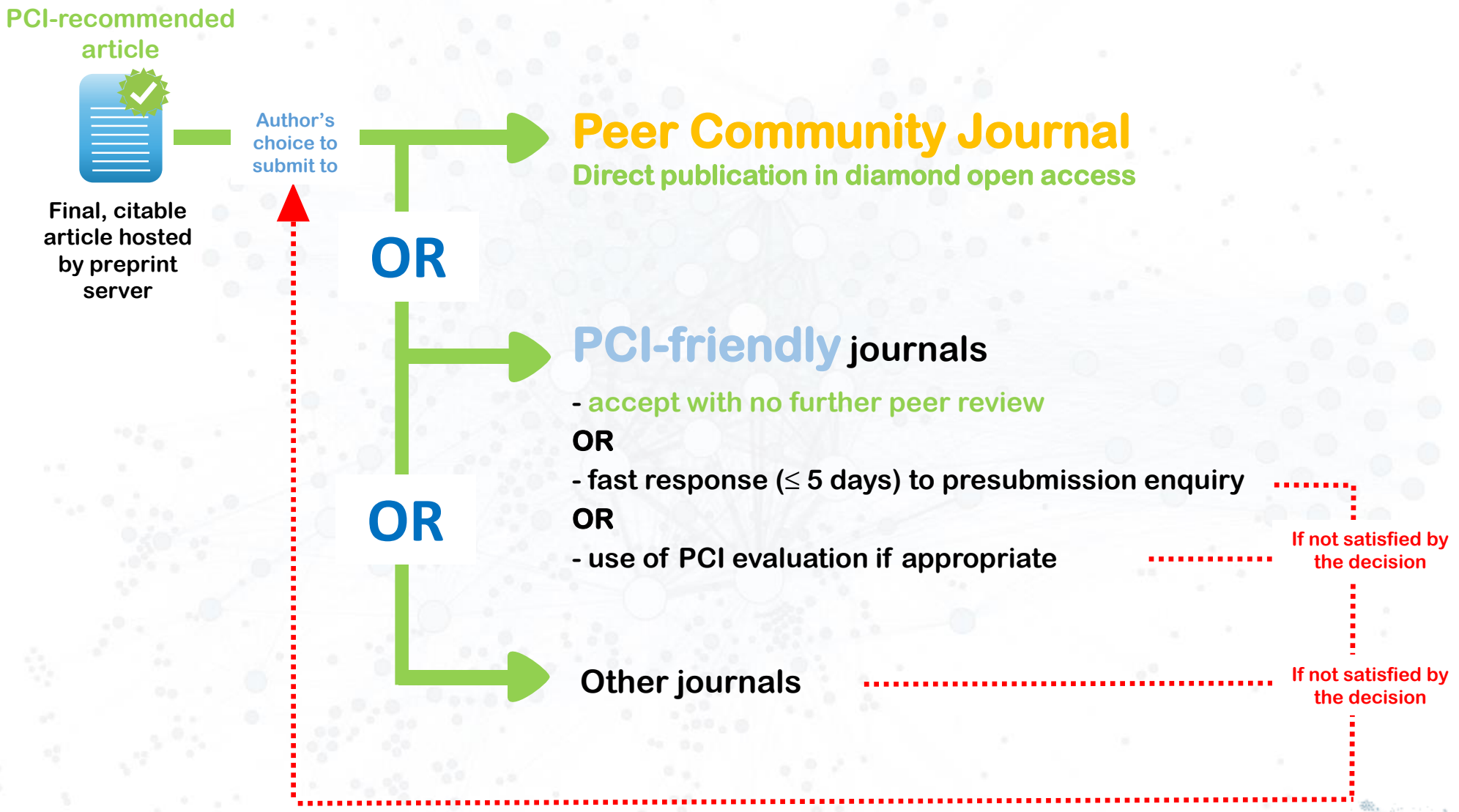
# Peer Community Journal

https://peercommunityjournal.org/




- Accepts **as is** all articles recommended by a PCI
- **Free for readers** (Open Access)
- **Free for authors** (no APC)
- 80 PCI recommended articles will be published in the weeks following the launch of the journal

# In summary


PCI-recommended article
Final, citable article hosted by preprint server
Author's choice to submit to
Peer Community Journal
Direct publication in diamond open access
OR
PCI-friendly journals
- accept with no further peer review
OR
- fast response (≤ 5 days) to presubmission enquiry
OR
- use of PCI evaluation if appropriate
OR
Other journals
If not satisfied by the decision
If not satisfied by the decision

# Authors of PCI-recommended preprints

- **... can know** within a few days **if one or more PCI-friendly journals**
  - are interested
  - will request or not further peer-review

- **... get 100% chance to publish rapidly** in an indexed and free open access journal (Peer Community Journal)

# PCI in figures
# &
# Current PCIs

# PCI in figures

# Current PCIs

**2017**
PCI Evolutionary Biology

**2018**
PCI Ecology
PCI Paleontology

**2019**
PCI Animal -Science
PCI Zoology

**2020**
PCI Mathematical and Computational Biology
PCI Forest and Wood Science
PCI Network Science
PCI Genomics
PCI Archaeology
PCI Circuit Neuroscience

**2021**
PCI Registered Reports
PCI Ecotoxicology and Environmental Chemistry
PCI Infections

# Supports awards and recognition

# Institutions and universities































Max Planck Institute
for Evolutionary Anthropology

# Grants, awards and projects

PCI is one of the winners of the first call for projects of the French National Open Science Fund (2020)

OUVRIR LA SCIENCE !

Pilote project in « Notify » with COAR, Harvard Library, Los Alamos Lab, HAL, etc...

2020 LIBER Award for Library Innovation


COAR
Confederation of Open Access Repositories

PCI

# How to participate?

PCI

peercommunityin.org

- **Submit your articles to a PCI**
- **Spread the word**

PCI

PCI

peercommunityin.org

- **Submit your articles to a PCI**
- **Spread the word**
- **Give us contacts to obtain supports or recognition**

PCI

PCI

peercommunityin.org

- **Submit your articles to a PCI**
- **Spread the word**
- **Give us contacts to obtain supports or recognition**
- **Think about founding a new PCI**

PCI

peercommunityin.org

- **Submit your articles to a PCI**
- **Spread the word**
- **Give us contacts to obtain supports or recognition**
- **Think about founding a new PCI**
- **Register to the PCIs' websites (to be reviewer)**

PCI

PCI

peercommunityin.org

- **Submit your articles to a PCI**
- **Spread the word**
- **Give us contacts to obtain supports or recognition**
- **Think about founding a new PCI**
- **Register to the PCIs' websites (to be reviewer)**
- **Consider becoming a recommender**

PCI

# Peer Community in Ecotoxicology and Environmental Chemistry

Peer Community In
Ecotoxicology & Environmental Chemistry

- **Launched in 2021 by:**

  **Christian Mougin**

  **Wilfried Sanchez**

  **Pierre Labadie**

- **Scope: interfaces of environmental chemistry, ecology and environmental toxicology**

- **Currently 20 recommenders**

PCI

Peer Community In
Ecotoxicology & Environmental Chemistry

- **Our supports**




?


?

- **Our website**
  https://ecotoxenvchem.peercommunityin.org/
- **Our contact**
  contact@ecotoxenvchem.peercommunityin.org

PCI

Peer Community In
Ecotoxicology & Environmental Chemistry

- **Current discussions for partnership with PCI-friendly journals**
- **Also seeking for:**

  **-New submissions of preprints**

  **-Additional recommenders**

PCI

# Thanks!

@PeerCommunityIn

https://peercommunityin.org