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## 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

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**HAL Id: hal-03484190**

**<https://hal.inrae.fr/hal-03484190>**

Submitted on 7 Mar 2023

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# 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



PCI

# Scientific Publication

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- **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

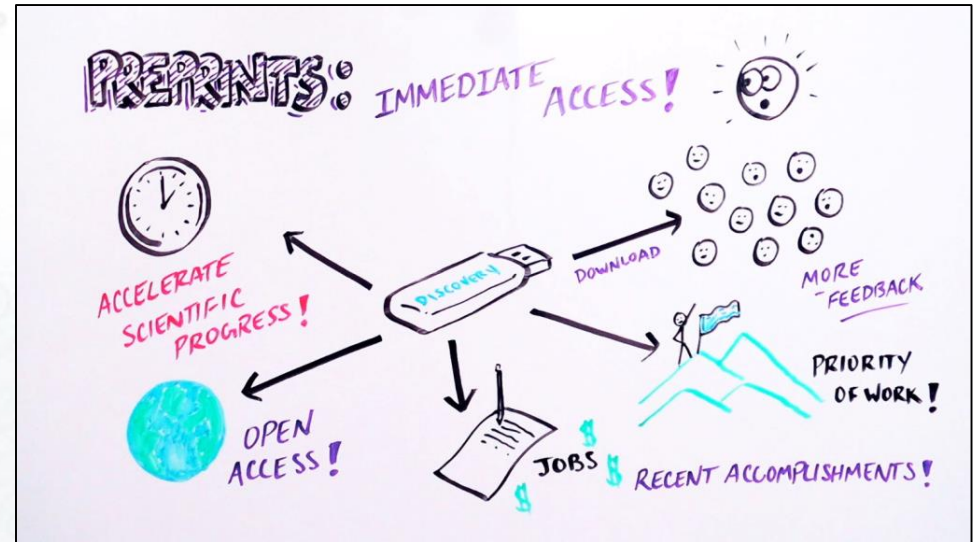
<https://peercommunityin.org>, @PeerCommunityIn

# Preprints: the solution?

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## Preprints are good...

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



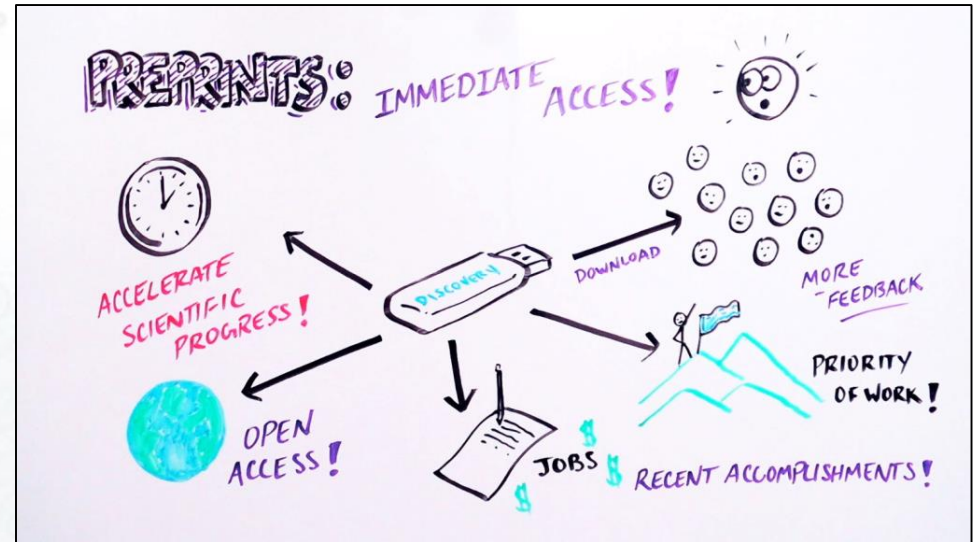
## But putative quality problem...

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



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## 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

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# The aim of PCI

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**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?

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## Repository



## PREPRINT server



1

author deposits their manuscript,  
data and code

## Repository



## PREPRINT server



## PCI website



1

author deposits their manuscript,  
data and code

2

author submits  
the DOI/URL

## Repository

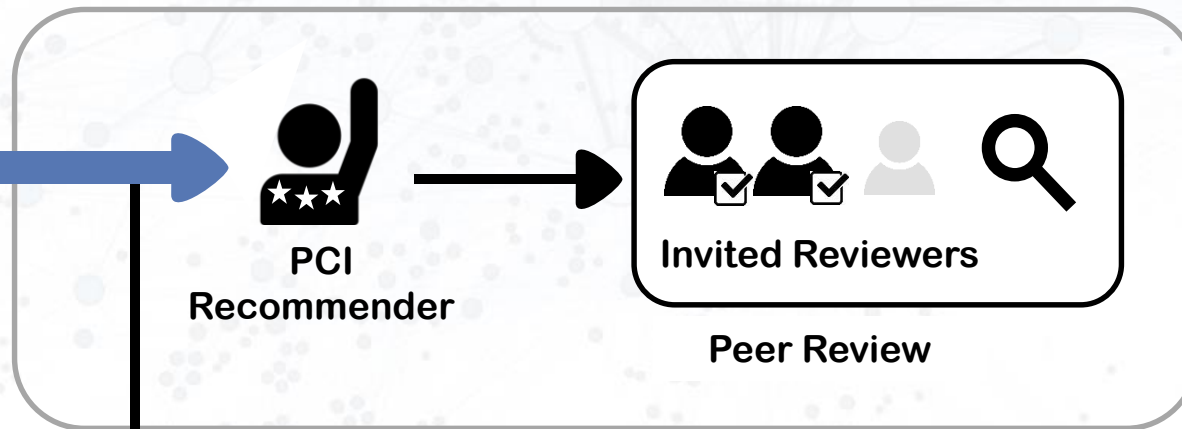


## PREPRINT server

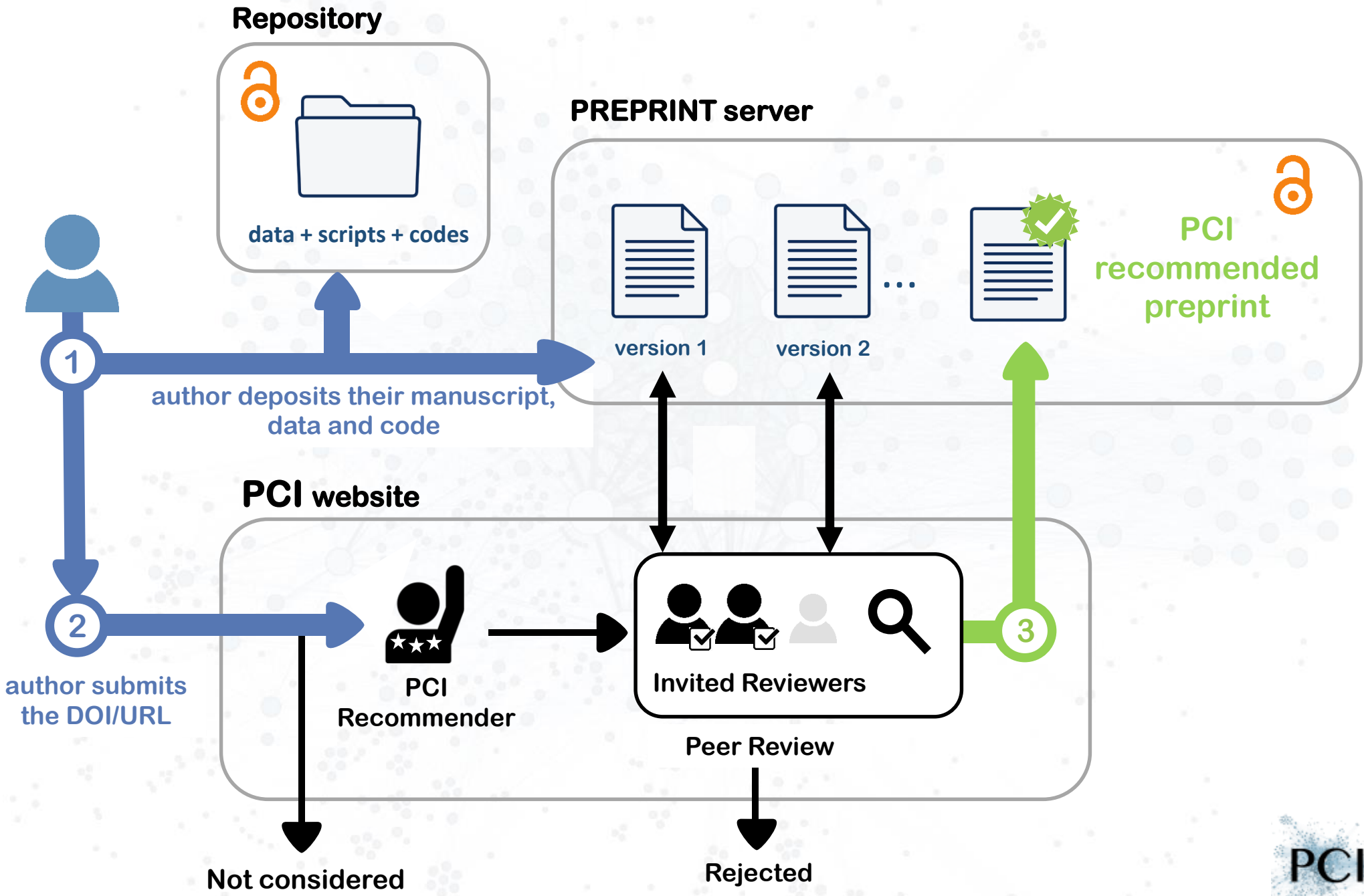


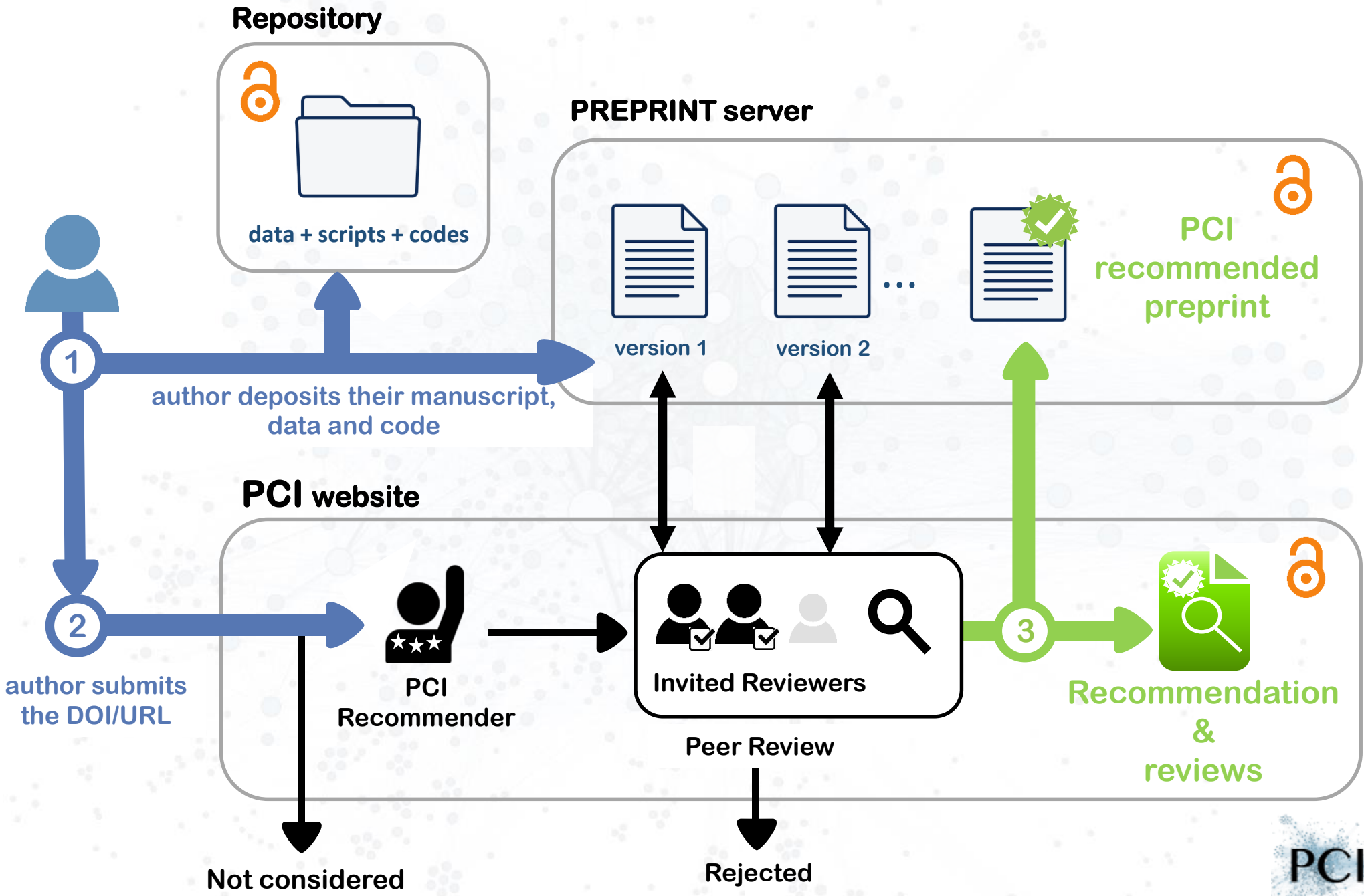
author deposits their manuscript,  
data and code

## PCI website



Not considered









## 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 Kozłowski<sup>1</sup>, Rahim Hassanaly-Goulamhoussen<sup>1</sup>, Martine Da Rocha<sup>1</sup>, Georgios D Koutsouvolos<sup>1</sup>, Marc Bailly-Bechet<sup>1\*</sup>, Etienne GJ Danchin<sup>1\*</sup>.

<sup>1</sup> Université Côte d'Azur, INRAE, CNRS, ISA – Sophia Antipolis, France  
\* equal contribution

Cite as: Kozłowski DK, Hassanaly-Goulamhoussen R, Da Rocha M, Koutsouvolos 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: [rahim.hassanaly@unice.fr](mailto:rahim.hassanaly@unice.fr)  
[djampa.kozlowski@outlook.com](mailto: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 consensus 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 TE 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



## 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-recommended preprint

# Recommendation text



## Peer Community In Evolutionary Biology

RESEARCH ARTICLE

**Open Access**  
**Open Data**  
**Open Code**  
**Open Peer-Review**

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Correspondence: [djampa.kozlowski@unice.fr](mailto:djampa.kozlowski@unice.fr)  
[rahim.kozlowski@unice.fr](mailto:rahim.kozlowski@unice.fr)

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PEER COMMUNITY IN EVOLUTIONARY BIOLOGY 1



Recommendation

Share Tweet

Printable page

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Open Access



Open Peer-Review



Open Data



Open Code



# Final, valid, findable and citable article

PCI

# Publication of PCI-recommended preprints

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PCI-recommended  
preprint



**Peer Community Journal**

Direct publication in diamond open access

OR



**PCI-friendly** journals

OR



**Other journals**

# PCI-friendly journals

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## 3 categories

### 1. Accept without further reviews





# PCI-friendly journals

## 3 categories

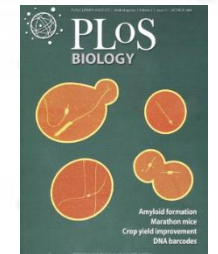
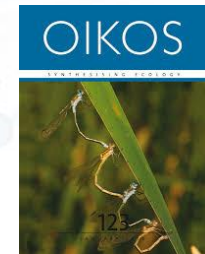
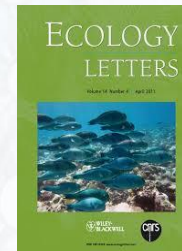
### 1. Accept without further reviews



...

### 2. Fast response ( $\leq 5$ days) to presubmission enquiry

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



...



# PCI-friendly journals

## 3 categories

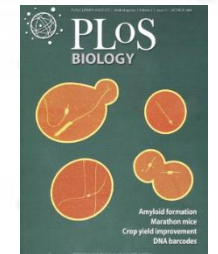
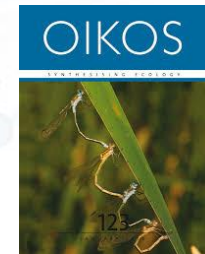
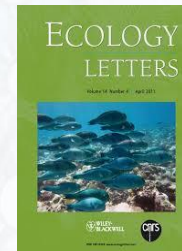
### 1. Accept without further reviews



...

### 2. Fast response ( $\leq 5$ days) to presubmission enquiry

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



...

### 3. May use the evaluations of PCI if adequate



...



# Peer Community Journal

Search articles, authors. [Q Search](#) [Browse by volumes](#) [Browse by section](#)

## Latest Articles



Evolutionary Biology

### Relaxation of purifying selection suggests low effective population size in eusocial Hymenoptera and solitary pollinating bees

Weyna, Arthur ; Romiguier, Jonathan

10.24072/pcjournal.3 - Peer Community Journal, Volume 1 (2021), article no. e2.

With one of the highest number of parasite, eusocial and pollinator species among all insect orders, Hymenoptera features a great diversity of specific lifestyles. At the population genetic level, such life-history strategies are expected to decrease effective population size and efficiency of purifying selection. In this study, we tested this hypothesis by estimating the relative rate of non-synonymous substitution in 169 species to investigate the variation in natural selection efficiency throughout the hymenopterian tree of life. We found no effect of parasitism or body size, but show that relaxed selection is associated with eusociality, suggesting that the division of reproductive labour decreases effective population size in ants, bees and wasps. Unexpectedly, the effect of eusociality is marginal compared to a striking and widespread relaxation of selection in both social and non social bees, which indicates that these keystone pollinator species generally feature low effective population sizes. This widespread pattern suggests specific constraints in pollinating bees potentially linked to limited resource and high parental investment. The particularly high load of deleterious mutations we report in the genome of these crucial ecosystem engineer species also raises

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## People

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Managing coordinator  
Editorial board

## Sections

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[Archaeology](#)  
[Circuit Neuroscience](#)  
[Ecology](#)  
[Ecotoxicology & Environmental Chemistry](#)  
[Evolutionary Biology](#)  
[Forest & Wood Sciences](#)  
[Genomics](#)

- **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

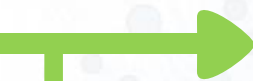
# In summary

PCI-recommended  
article



Final, citable  
article hosted  
by preprint  
server

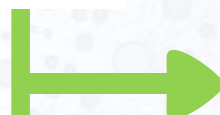
Author's  
choice to  
submit to



**Peer Community Journal**

Direct publication in diamond open access

OR



**PCI-friendly journals**

- accept with no further peer review

OR

- fast response ( $\leq 5$  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

PCI

# Authors of PCI-recommended preprints

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- **... 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

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# PCI in figures



14

PEER  
COMMUNITIES



441

SUBMITTED  
ARTICLES



256

RECOMMENDED  
ARTICLES



47

MEDIAN TIME TO  
1ST DECISION (DAYS)



>9200

TWITTER  
FOLLOWERS



>5600

REGISTERED  
USERS



>1700

RECOMMENDERS



120

MANAGING BOARD  
MEMBERS



797

REVIEWERS



88

FRIENDLY  
JOURNALS



>12000

VISITORS TO  
PCI WEBSITES



103

SUPPORTING  
ORGANISATIONS



# 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 BIOLOGY



UNIVERSITÉ DE MONTPELLIER



Swiss Institute of Bioinformatics



Université de Limoges



Inrap



Aix\*Marseille université



UNIVERSITÉ CÔTE D'AZUR



École Pratique des Hautes Études

PSL



CRÉATEURS DE FUTURS DEPUIS 1257



Institut de Recherche pour le Développement FRANCE



université de BORDEAUX



UNIVERSITÉ DE RENNES 1



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)



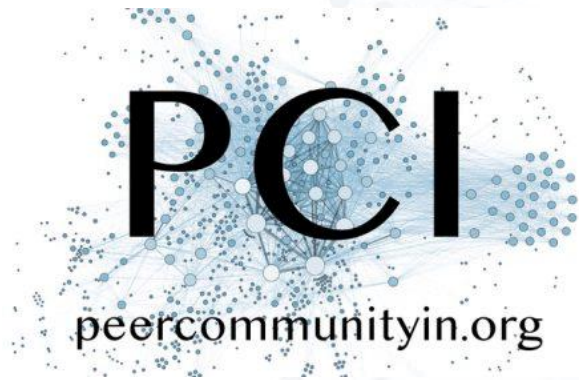
Pilote project in « Notify » with COAR, Harvard Library, Los Alamos Lab, HAL, etc...

2020 LIBER Award for Library Innovation



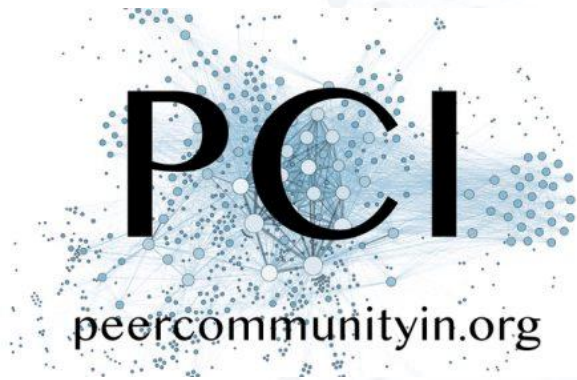
# How to participate?

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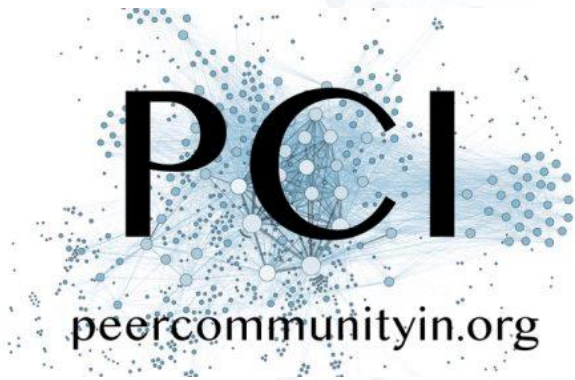


- **Submit your articles to a PCI**
- **Spread the word**

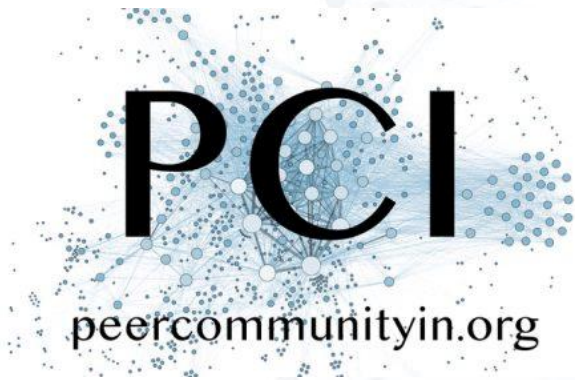




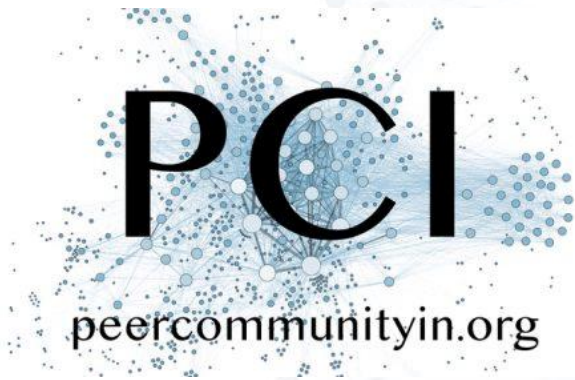
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- **Give us contacts to obtain supports or recognition**



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- **Give us contacts to obtain supports or recognition**
- **Think about founding a new PCI**



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- **Think about founding a new PCI**
- **Register to the PCIs' websites (to be reviewer)**



- **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**

# Peer Community in Ecotoxicology and Environmental Chemistry



- **Launched in 2021 by:**

**Christian Mougin**

**Wilfried Sanchez**

**Pierre Labadie**



INRAE



Ifremer



- **Scope: interfaces of environmental chemistry, ecology and environmental toxicology**
- **Currently 20 recommenders**



- **Our supports**



?



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- **Our website**

<https://ecotoxenvchem.peercommunityin.org/>

- **Our contact**

[contact@ecotoxenvchem.peercommunityin.org](mailto:contact@ecotoxenvchem.peercommunityin.org)

- **Current discussions for partnership with PCI-friendly journals**
- **Also seeking for:**
  - New submissions of preprints**
  - Additional recommenders**

# Thanks!

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