Atelier Dissemin

Marie Farge
CAPSH-Dissemin
CNRS-INSMI et ENS Paris

Journées CasuHAL 2023
Tous interopér(HAL)bles?
Toulouse, 15 Juin 2023

Définitions

Publier des résultats de la recherche signifie les rendre publics, afin d'être vérifiés, clarifiés, diffusés, utilisés et améliorés par d'autres.

La publication d'articles dans des revues à comité de lecture est la colonne vertébrale qui assure la validation collective des articles de recherche grâce à l'évaluation par les pairs.

Un pair est un chercheur en activité spécialiste du sujet de la revue capable de vérifier que les idées et résultats présentés dans l'article sont originaux, valides et suffisamment pertinents pour être publiés. Leur rôle est de corriger les erreurs et suggérer des améliorations. Ils agissent en tant qu'éditeur (`editor') ou évaluateur (`referee') puis transmettent les articles acceptés au publicheur (`publisher') . Afin de préserver leur objectivité, les pairs doivent être indépendants du `publicheur' et non rétribués par celui-ci (`editor in residence').

Qui a accès aux publications de recherche?

Aujourd'hui seuls les chercheurs travaillant dans des institutions et des pays suffisamment riches pour pouvoir payer des abonnements très coûteux.

Les chercheurs travaillant dans des entreprises ou dans des institutions pauvres, les étudiants, les chercheurs retraités, les enseignants du secondaire, les journalistes et la majorité des contribuables qui financent la recherche publique n'y ont pas accès.

Quand vous donnez une idée, vous ne la perdez pas,
contrairement à un produit matériel, mais
les résultats d'un article qui n'est pas lu sont perdus.

$\Longrightarrow$

La connaissance ne devrait pas être un produit commercial,
voire spéculatif, mais un bien commun qui doit être transmis.

Charlotte Hess and Elinor Ostrom
Understanding knowledge as a Commons
MIT Press, 2006

Elinor Ostrom, Nobel Prize in economic sciences for 'her analysis of economic governance, especially the Commons, 2009

Les publicheurs en ont pris le contrôle

Aujourd'hui les publicheurs possèdent les revues et les articles car ils obligent les chercheurs à leur céder gratuitement leurs droits d'auteur. Ils leur demandent aussi d'assurer gratuitement la révision des articles et de coordonner les comités éditoriaux.

Ce modèle économique date de l'ère de l'imprimerie, quand on n'avait pas *Internet*, mais n'a plus de sens à l'ère numérique, sinon d'augmenter les profits des 'majors' et de leurs actionnaires.

Les chercheurs veulent reprendre le contrôle des revues, dont ils assurent l'évaluation par les pairs, et des articles qu'ils rédigent et publient afin de maximiser leur dissémination grâce à *Internet*.

Pour en savoir plus, voir sur YouTube :
#DataGueule 63, Privés de savoir?

2012, des chercheurs se révoltent

Sir Tim Gowers et 33 collègues mathématiciens (dont je suis) avons lancé le mouvement *The Cost of Knowledge* qui appelle à boycotter *Elsevier*, ce qui a permis de stopper le *Research Works Act* au Congrès américain, une proposition de loi déposée sous la pression du lobbying d'*Elsevier*.

Sir Tim Gowers, Fields Medal 1998

17062 Researchers Taking a Stand. ***See the list***

Academics have protested against Elsevier's business practices for years with little effect. These are some of their objections:

1. They charge exorbitantly high prices for subscriptions to individual journals.
2. In the light of these high prices, the only realistic option for many libraries is to agree to buy very large "bundles", which will include many journals that those libraries do not actually want. Elsevier thus makes huge profits by exploiting the fact that some of their journals are essential.
3. They support measures such as SOPA, PIPA and the ~~Research Works Act~~, that aim to restrict the free exchange of information.

http://www.thecostofknowledge.com/

2012, la presse a très vite relayé le boycott

The Economist

4/7/2019

Scientific publishing

The price of information

Academics are starting to boycott a big publisher of journals

Feb 4th 2012 | from the print edition

Commercial publishers have begun to experiment with open-access ideas, such as charging authors for publication rather than readers for reading. But if the boycott continues to grow, things could become more urgent. After all, publishers need academics more than academics need publishers. And incumbents often look invulnerable until they suddenly fall. Beware, then, the Academic spring.

Publishing, perishing, and peer review

Could new kinds of electronic publishing rescue academia from its long-running "journals crisis"?

22/1/1998

The Economist, January 22nd 1998

The New York Times

Mathematicians Organize Boycott of a Publisher

13/2/2012

More than 5,700 researchers have joined a boycott of Elsevier

The signers included three Fields medalists — Dr. Gowers, Terence Tao and Wendelin Werner. The statement was also signed by Ingrid Daubechies, president of the International Mathematical Union, who then resigned as one of the unpaid editors in chief at the Elsevier journal Applied and Computational Harmonic Analysis.

2012, ils proposent un nouveau modèle

Note sur la publication en accès libre rédigée le 29 Juin 2012 par *Marie Farge* à la demande de *Geneviève Fioraso*, ministre de la recherche :

`Il est indispensable que les chercheurs puissent développer une troisième voie, beaucoup moins coûteuse [...] Elle est appelée *Diamond OA* et se caractérise par le fait que ni le lecteur ni l'auteur ne doivent payer et que le journal appartient, non plus à une maison d'édition, mais au comité éditorial [...] un collège de chercheurs qui se charge de la publication des articles avec l'aide d'unités de service.'

http://openscience.ens.fr/MARIE_FARGE/

La terminologie *Diamond OA* vient du *Diamond Sutra qui* est le premier texte imprimé connu, publié en Chine le *11 Mai 868*

British Library, Londres

Le modèle d'accès libre 'diamant'

- Les auteurs gardent leur droit d'auteur
et mettent leurs articles en accès libre
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- Les journeaux appartiennent à leur comité éditorial,
composé exclusivement de chercheurs en activité qui
assurent bénévolement l'évaluation par les pairs.

- Les institutions publiques financent et possèdent les plateformes
(d'évaluation, publication et bibliométrie) développées en logiciel libre.
- Les bibliothécaires assurent la visibilité des articles sur *Internet*
en ajoutant les métadonnées permettant de les trouver facilement.
- Les publicheurs peuvent assurer divers services mais
après avoir été mis en concurrence par appel d'offre.

La meilleure solution en attendant mieux

Aujourd'hui les publicheurs nous imposent leur modèle 'doré',
où nous devons payer pour publier nos articles.
Ceci est inadmissible du point de vue éthique car il conduit à la création de nombreuses revues de mauvaises qualité et prédatrices.

http://openscience.ens.fr/MARIE_FARGE2011_AVIS_COMITE_ETHIQUE_CNRS

La meilleure façon de gérer la transition actuelle est l'accès libre 'vert',
où les chercheurs publient dans les revues qu'ils préfèrent et déposent leur version auteur en accès libre grâce à des archives publiques.

http://openscience.ens.fr/MARIE_FARGE2017_BOOK_CHAPTER_COMMISSION

Certaines revues autorisent ce dépôt dès la date de publication.
La *Loi Lemaire pour la République Numérique* du 7 Octobre 2016 rend ce dépôt légal au plus six mois après la publication.

2015 *Dissemin* pour libérer les articles

'Trouver vos articles bloqués par des péages et libérez-les en un clic!'

Plateforme créée en 2014 par Antonin Delpeuch
quand il était étudiant en math-informatique à l'ENS Paris.

http://dissem.in
https://github.com/dissemin

Plateforme faite par des chercheurs

La plate-forme *Dissemin* est développée par l'association *CAPSH (Comité pour l'Accessibilité aux Publications en Sciences et Humanités)* créée le *5 Septembre 2015* et domiciliée à Cluny (Saône-et-Loire).

Antonin Delpeuch
Graduate student, Computer Science
École Normale Supérieure
France

Antonin Delpeuch

"We need to take a stand against more traditional publishers"

SPARC Europe

http://openscholarchampions.eu

Europe's Open Access Champion

Antoine Amarilli

Thomas Bourgeat

Marie Farge

Pablo Rauzy

http://dissem.in

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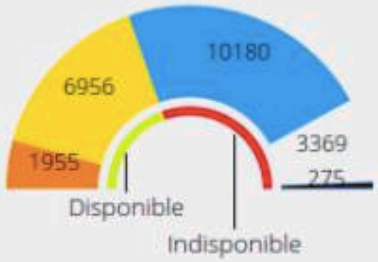
Analyser mes publications ou Chercher un collègue

Libre accès (voie verte)

Les chercheurs ont souvent le droit de mettre leurs articles en accès libre sur le Web, pour compléter la version payante proposée par les éditeurs traditionnels. Pourtant, tous ne le font pas.

À cause de cela, les bibliothèques doivent payer à prix d'or des abonnements électroniques aux journaux de recherche, ce qui grève leurs finances et limite leur offre.



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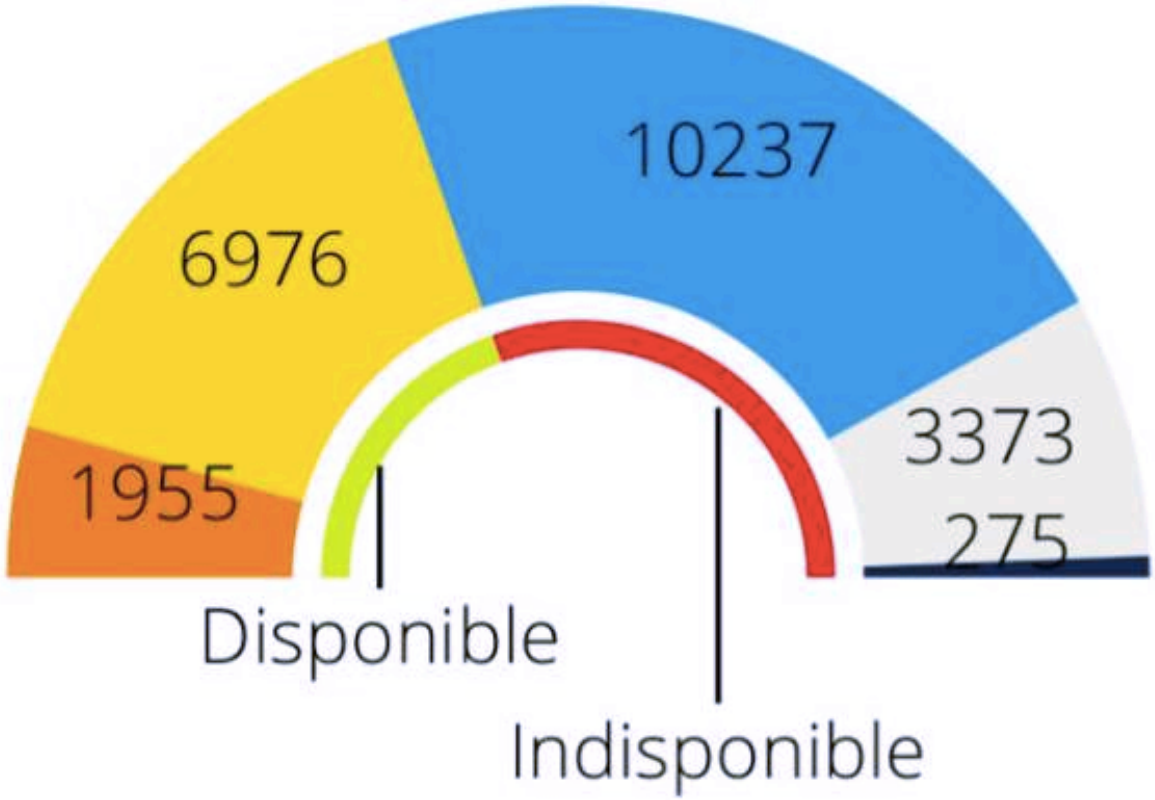

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Entrez ici le prénom puis le nom du chercheur dont vous cherchez les articles

Green open access

Many researchers do not use their right to make their papers freely available online, in addition to the paywalled version offered by traditional publishers.

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Seung-Bu Park, Pierre Gentine, Kai Schneider, **Marie Farge**

Coherent Structures in the Boundary and Cloud Layers: Role of Updrafts, Subsiding Shells, and Environmental Subsidence

Download | American Meteorological Society, Journal of the Atmospheric Sciences, 2016.

Frank G. Jacobitz, Kai Schneider, Wouter J. T. Bos, **Marie Farge**

Structure of sheared and rotating turbulence: Multiscale statistics of Lagrangian and Eulerian accelerations and passive scalar dynamics

Download | American Physical Society, Physical Review E, 1(93), 2016.

2015

Marie Farge, Kai Schneider

Wavelet transforms and their applications to MHD and plasma turbulence: a review

Download | Cambridge University Press (CUP), Journal of Plasma Physics, 06(81), 2015.

Researcher

Marie Farge

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Coherent vortex extraction in three-dimensional homogeneous turbulence: Comparison between CVS-wavelet and POD-Fourier decompositions

Upload | American Institute of Physics, Physics of Fluids, **10**(15), 2003.

Kai Schneider, **Marie Farge**

Coherent Vortex Simulation (CVS) of 2D bluff body flows using an adaptive wavelet method with penalisation

Upload | Springer Verlag, Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2003.

2002

Bartosz Protas, Kai Schneider, **Marie Farge**

Geometrical alignment properties in Fourier- and wavelet-filtered statistically stationary two-dimensional turbulence

Upload | Physical Review E, **4**(66), 2002.

Kai Schneider, **Marie Farge**

Adaptive Wavelet Simulation of a Flow around an Impulsively Started Cylinder Using Penalisation

Download | Elsevier, Applied and Computational Harmonic Analysis, **3**(12), 2002.

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Abstract

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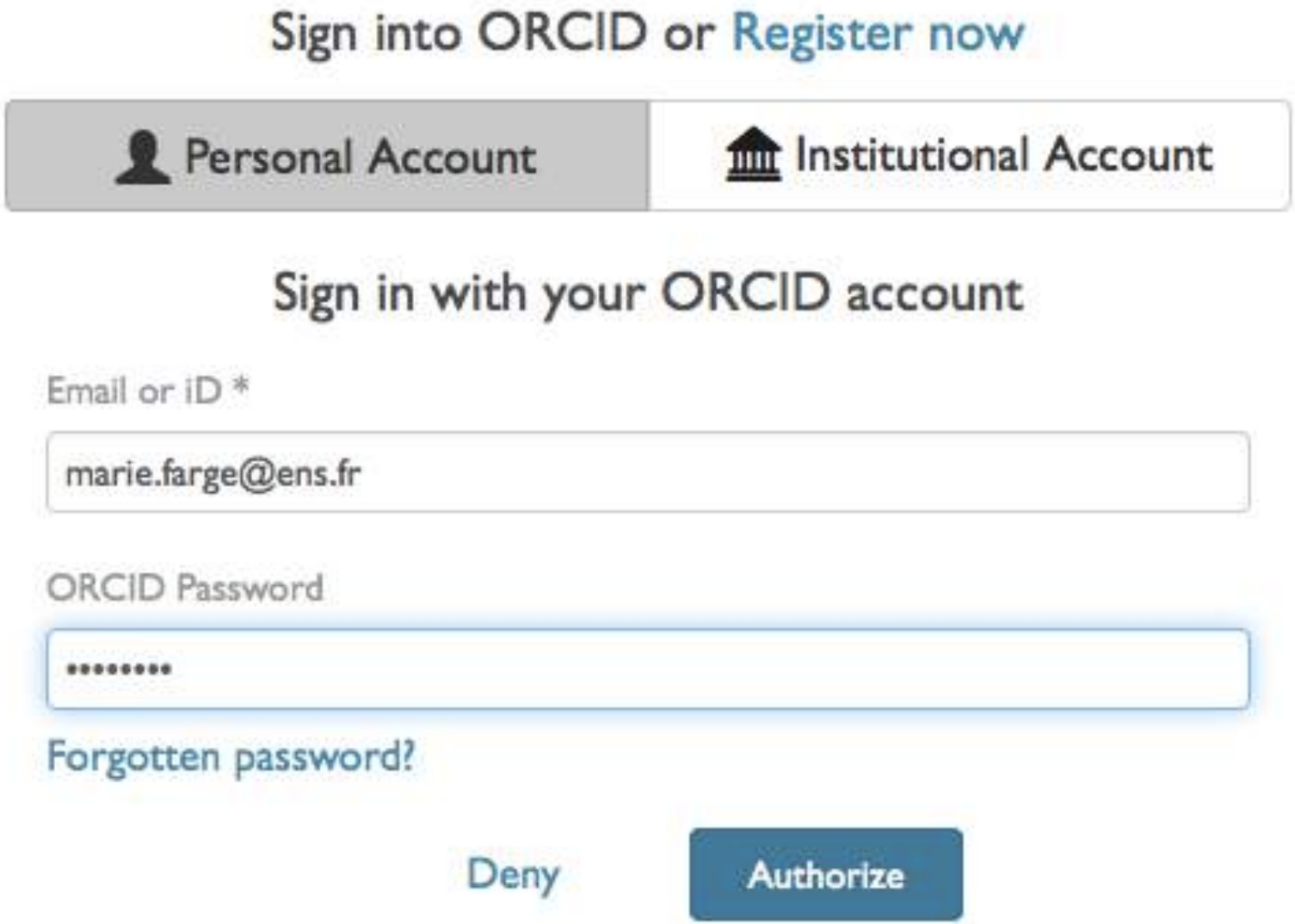

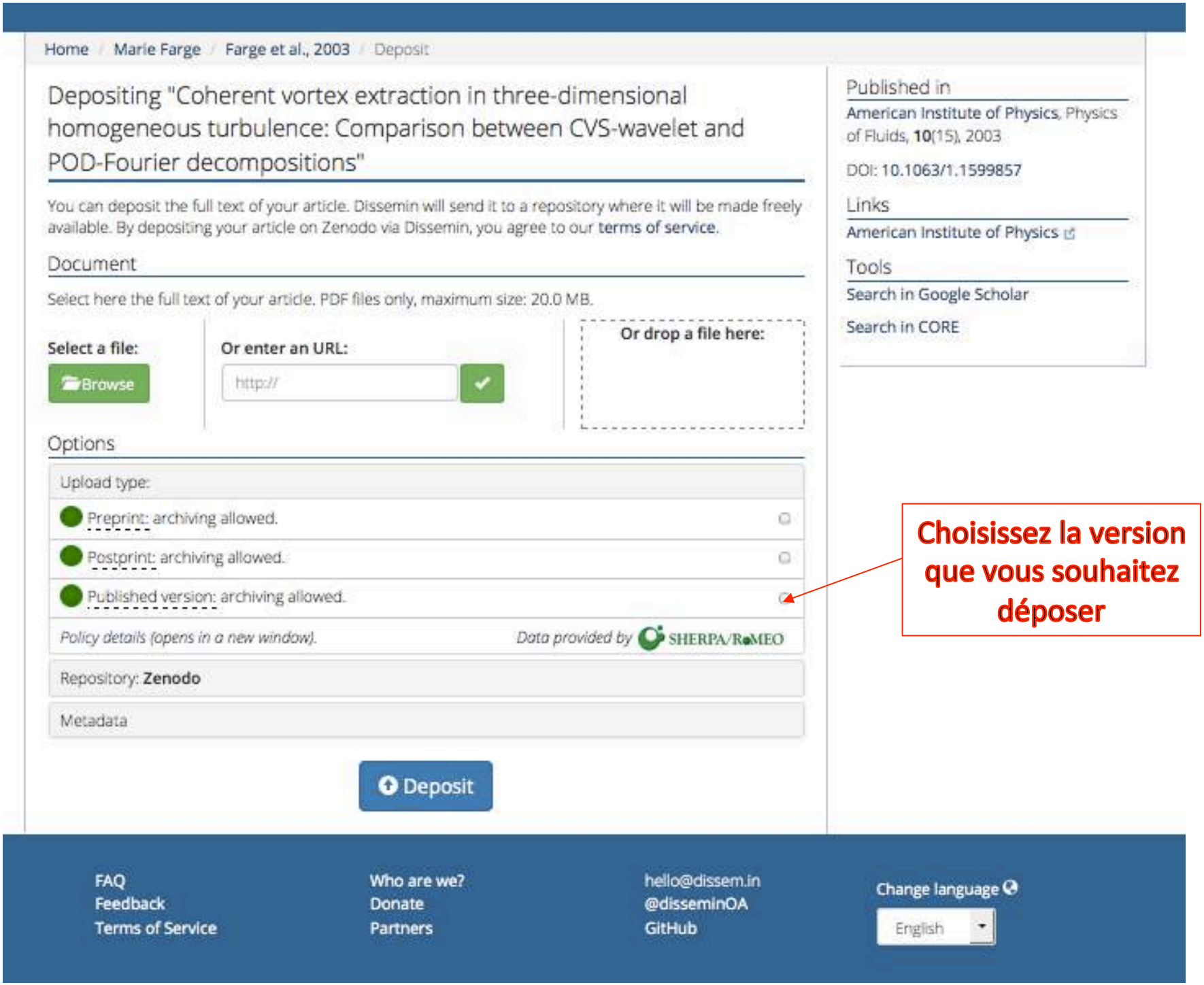
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PHYSICS OF FLUIDS VOLUME 15, NUMBER 10 OCTOBER 2003

Coherent vortex extraction in three-dimensional homogeneous turbulence: Comparison between CVS-wavelet and POD-Fourier decompositions

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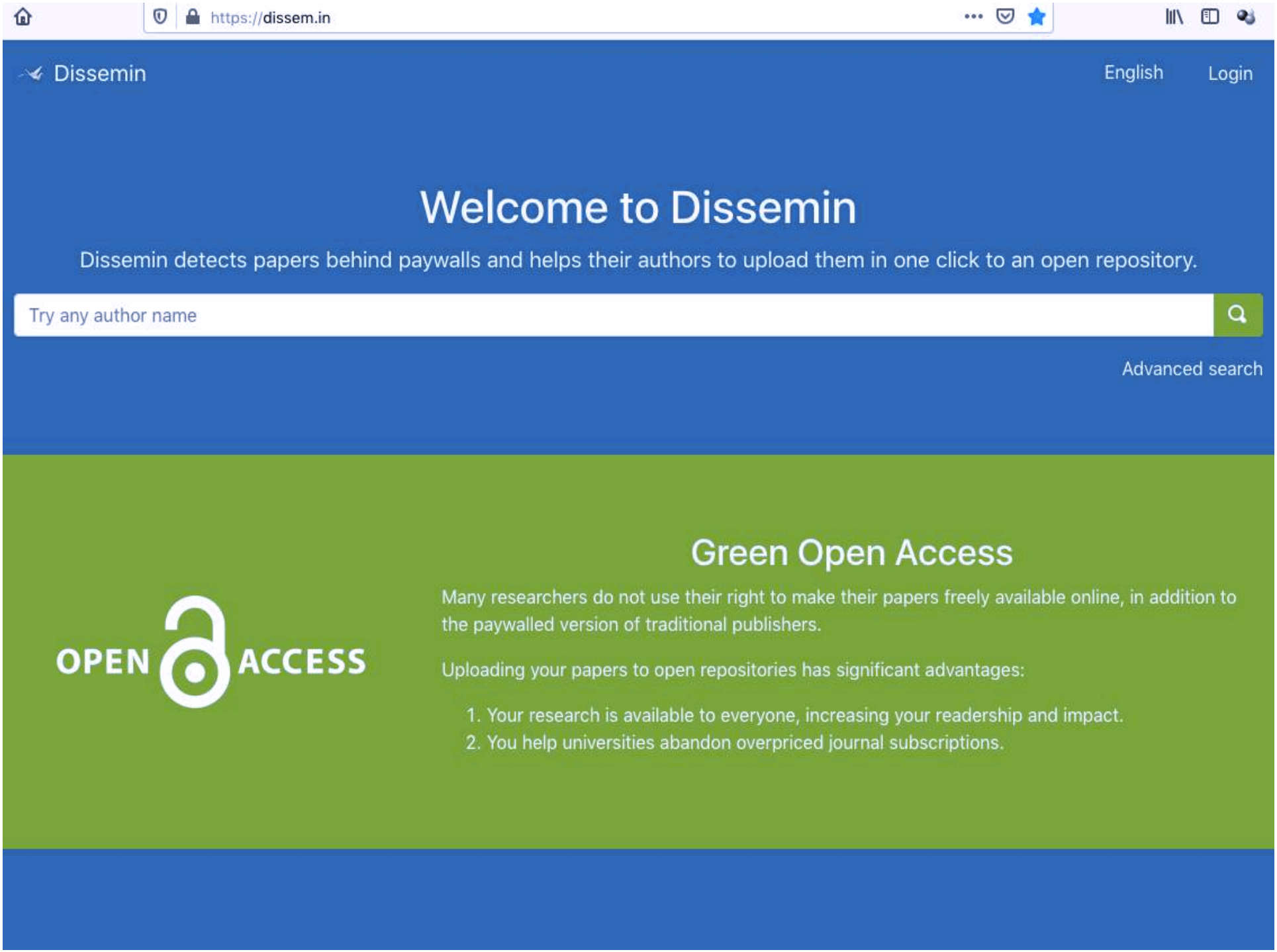
(Received 22 November 2002; accepted 21 May 2003; published 2 September 2003)

The coherent vortex simulation (CVS) decomposes each realization of a turbulent flow into two orthogonal components: An organized coherent flow and a random incoherent flow. They both contribute to all scales in the inertial range, but exhibit different statistical behaviors. The CVS decomposition is based on the nonlinear filtering of the vorticity field, projected onto an orthonormal wavelet basis made of compactly supported functions, and the computation of the induced velocity field using Biot–Savart's relation. We apply it to a three-dimensional homogeneous isotropic turbulent flow with a Taylor microscale Reynolds number $R_\lambda = 168$, computed by direct numerical simulation at resolution $N = 256^3$. Only $2.9\%N$ wavelet modes correspond to the coherent flow made of vortex tubes, which contribute 99% of energy and 79% of enstrophy, and exhibit the same $k^{-5/3}$ energy spectrum as the total flow. The remaining $97.1\%N$ wavelet modes correspond to a incoherent random flow which is structureless, has an equipartition energy spectrum, and a Gaussian velocity probability distribution function (PDF). For the same flow and the same compression rate, the proper orthogonal decomposition (POD), which in this statistically homogeneous case degenerates into the Fourier basis, decomposes each flow realization into large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As you will learn, this involves not to much effort. First, we describe the workflow and how the document finds it way into your repository. Then we explain our metadata, services and give an outline of how we guide you through the integration process. In a last step we dive into more technical topics, giving precise descriptions of the metadata encoding and how to transfer the file with its metadata.

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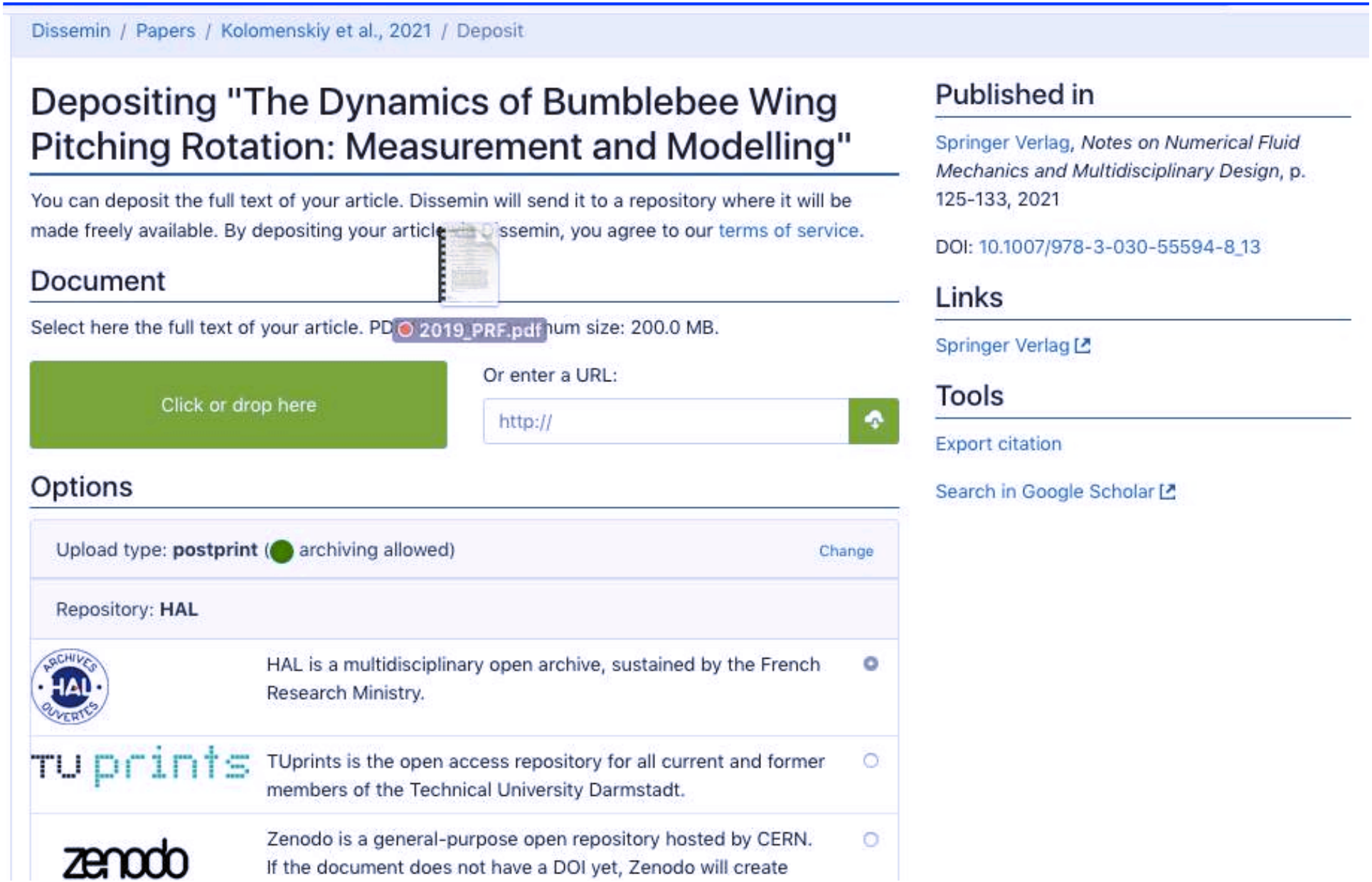

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turbulent kinetic energy. Active control is excluded in order to quantify the passive response real animals exhibit during their reaction time delay, before the wing beat can be adapted. Modifying the turbulence intensity shows no significant impact on the cycle-averaged aerodynamical forces, moments, and power, compared to laminar inflow conditions. The fluctuations of aerodynamic observables, however, significantly grow with increasing turbulence intensity. Changing the integral scale of turbulent perturbations, while keeping the turbulence intensity fixed, shows that the fluctuation level of forces and moments is significantly reduced if the integral scale is smaller than the wing length. Our study shows that the scale-dependent energy distribution in the surrounding turbulent flow is a relevant factor conditioning how flying insects control their body orientation.

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Abstract

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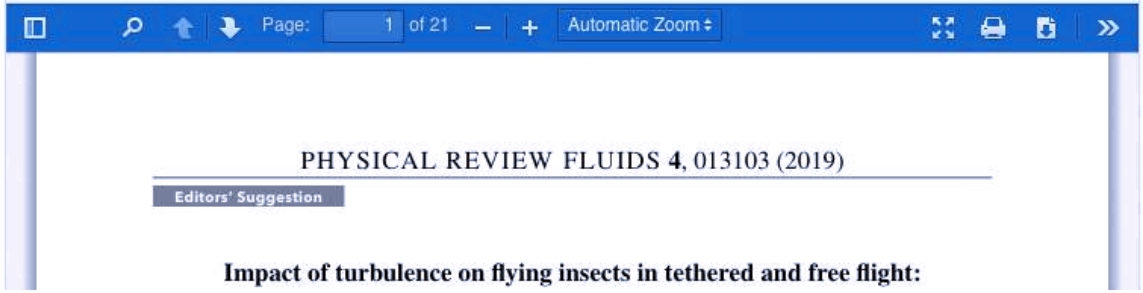
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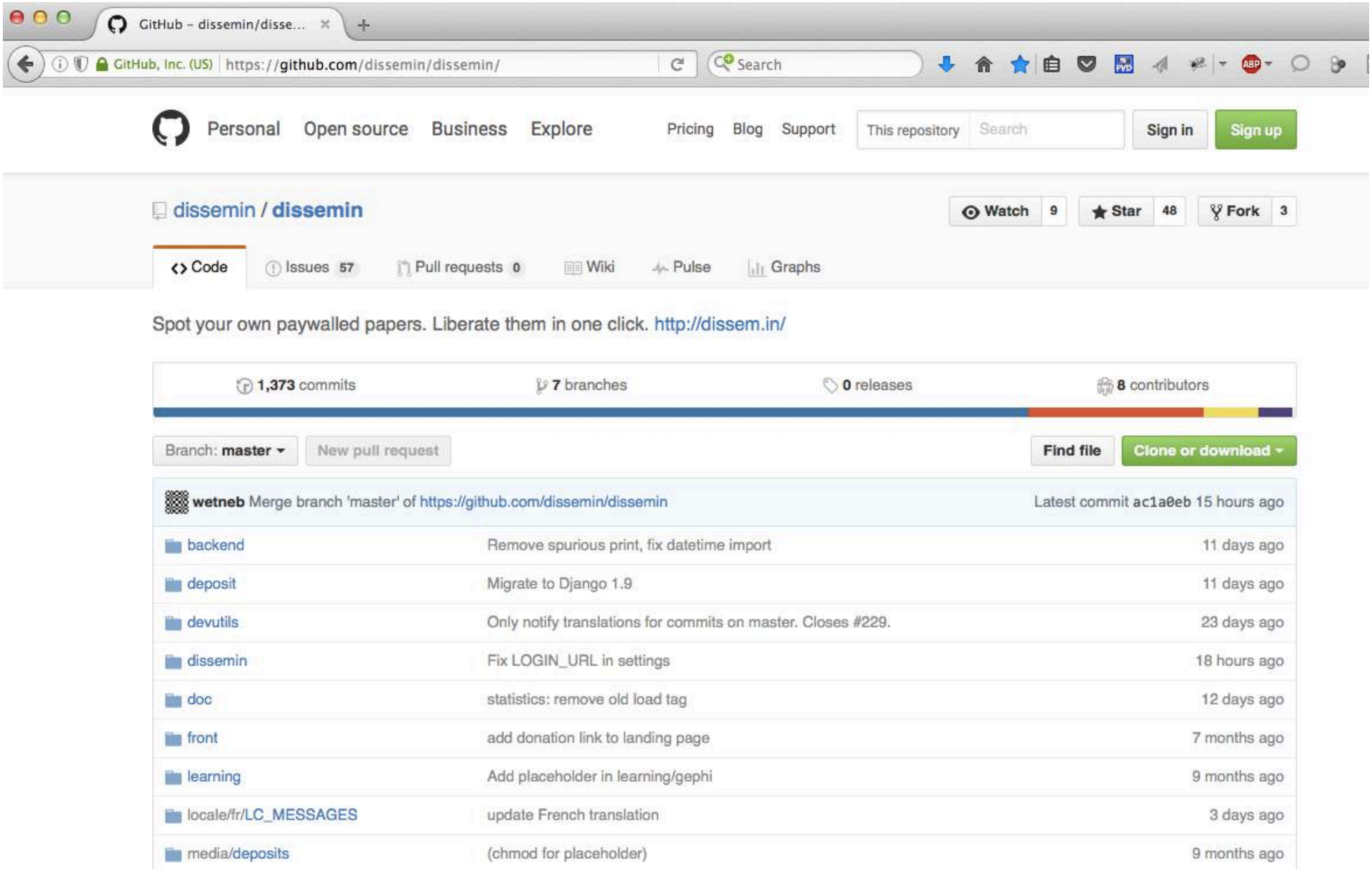

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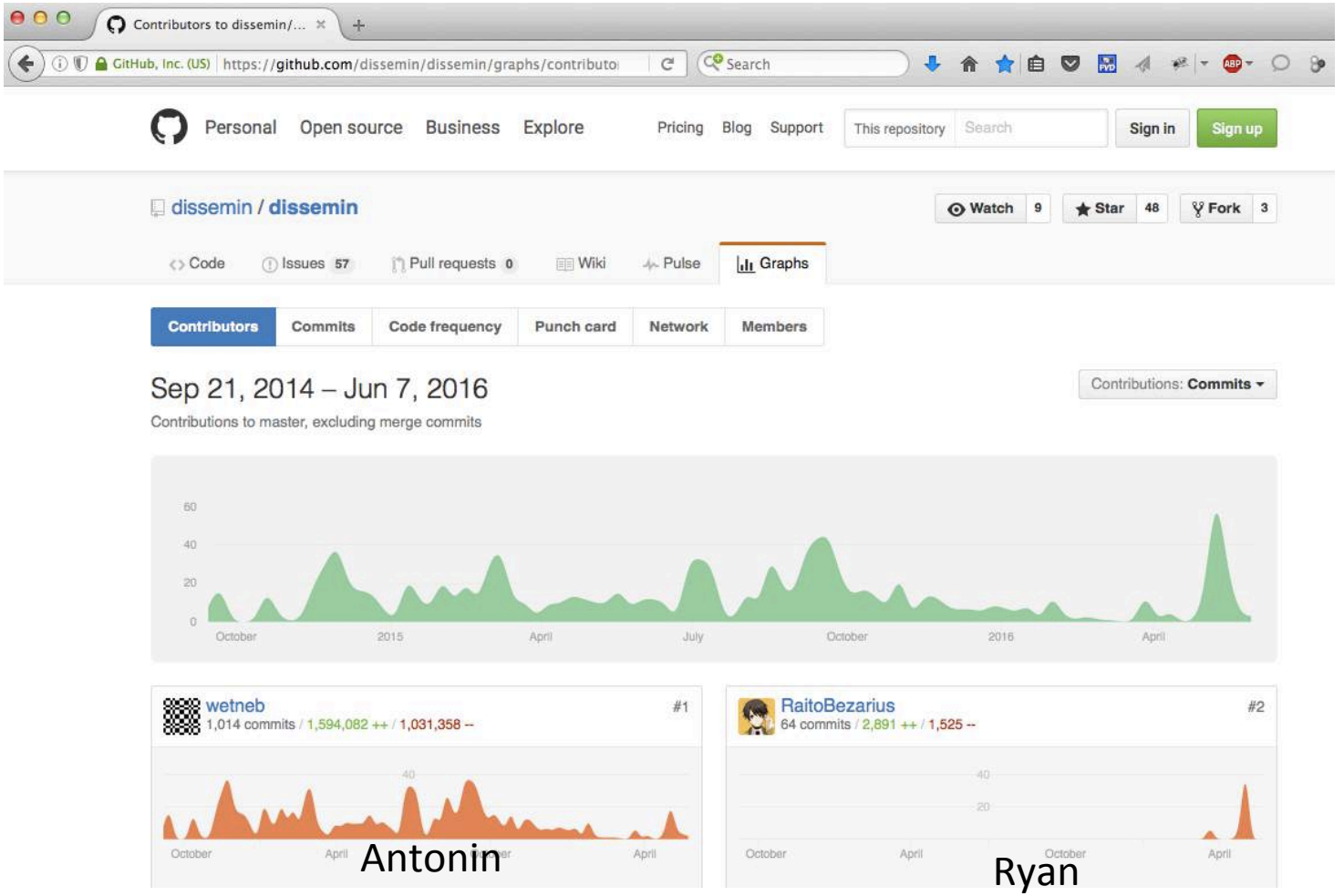

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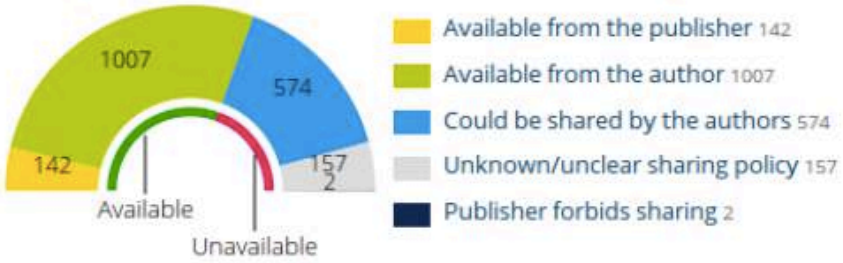

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