

Physical Review at glance

Physical Review Letters

Physical Review X

PRX Quantum

Reviews of Modern Physics

Physical Review A

Physical Review B

Physical Review C

Physical Review D

Physical Review E

Physical Review Research

Physical Review Accelerators & Beams

Physical Review Applied

Physical Review Fluids

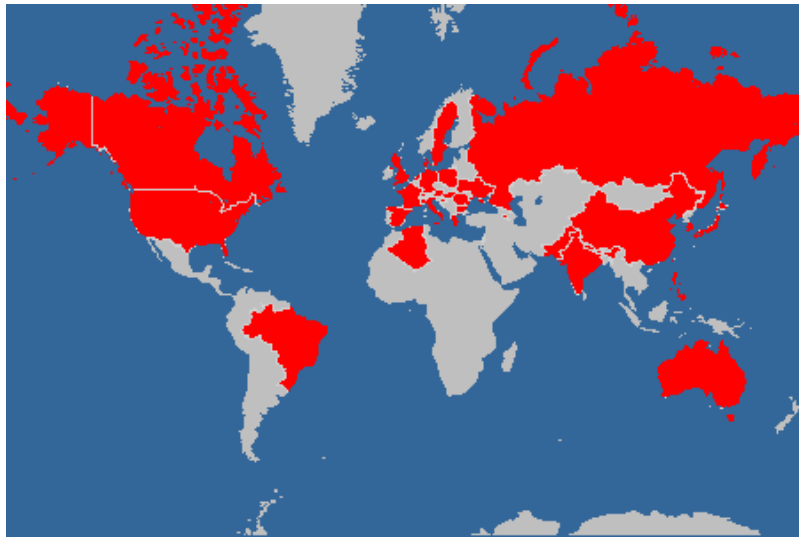
Physical Review Materials

Physical Review PER

Michael Thoennessen
Editor-in-Chief

The Physical Review: A global enterprise

Where are we from?



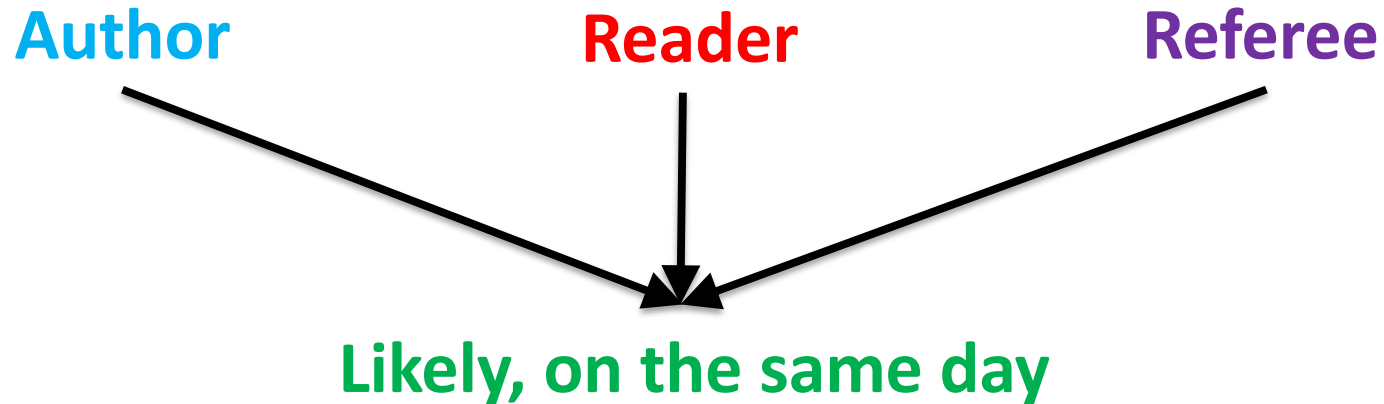
Where are our authors from?



Over 20000 publications in 2019  ~ 2 publications/hour (365 days)

Over 300000 citations to articles published in 2017-2018  ~ 12 citations/hour

The three roles you play in your research life



We are, in a way, facilitators and need your help

- As Authors, by writing good papers, and following good practices
- As referees, by helping assess the importance, novelty, and correctness of the paper
- As readers...by reading the papers we publish, and cite them if appropriate

Our flagship journals

PHYSICAL REVIEW X

- Make a fundamental theoretical and/or experimental discovery.
- Create a new paradigm or make a paradigm shift.
- Establish a fruitful analogy or connection between different subfields or topical areas of physics, or between physics and other scientific disciplines.
- Push an established field into a new direction.
- Significantly advance the state of the art of a field, or provide important and substantive follow-up developments to path-breaking papers.

PHYSICAL REVIEW LETTERS

- Open a new research area, or a new avenue within an established area.
- Solve, or make essential steps towards solving, a critical problem.
- Introduce new techniques or methodologies with significant impact.
- Be of unusual intrinsic interest to PRL's broad audience.

Our topical journals

PHYSICAL REVIEW E

covering statistical, nonlinear, biological, and soft matter physics

- Present important and novel physics.
- Make a significant contribution in a specific research area and generate interest for PRE's general readers.
- Represent an authoritative and substantive addition to the body of literature.
- Explore the subject matter comprehensively and thoroughly.

+ READABILITY !!!

PHYSICAL REVIEW ACCELERATORS AND BEAMS

- Accelerator science, technology, and applications.
- Present important and novel physics, or significant technical advances.
- Make a significant contribution in a specific research area and generate interest for PRAB's general readers.
- Represent an authoritative and substantive addition to the body of literature
- Diamond Open Access journal: Publishing charges defrayed by sponsors. Free to publish, free to read.

Not so-topical journals

PHYSICAL REVIEW RESEARCH

- Acceptance criteria aligned with topical Physical Review journals.
- Open to results in any area of science with a connection to Physics.
- Fully open access. APCs waived for articles submitted to any APS journal before 07/01, and discounted 50% for submissions in the remainder of 2020.

REVIEWS OF MODERN PHYSICS

- The best journal of Physics
- Authoritative reviews in all areas of Physics
- Mostly by invitation (although proposals are welcome)

Articles have to be well written

- **Make a point. What is your paper about?**

- Short papers should only make one point.
- Long papers should only make two at most.

- **Abstract and Introduction have to be clear.**

- These are the two things that people first read. If they are not specially clear, then nobody would like to read your paper. And, if forced (i.e. referee, editor), you would create a bad impression.

- **Figures (if any) tell the story of the paper. Make them to perfection!**

- No clutter
- Legible axis and lettering
- Consistent

- **Pick a title (if you have not before)**

- The title should be informative, not creative. People should be able to gather what the paper is about from the title. Avoid jargon.
- Avoid using words like 'Novel', 'New', 'Exact'. It is pretentious and oftentimes journals do not allow it.
- Refrain from posing the title as a question or as a full sentence.

- **Let your colleagues read it before submission.**

- If your paper is not well written, the referees would tell you so and you would have wasted a round of review. Remember, most journals only allow two rounds of review.

- **Write a cover letter**

- Address the acceptance criteria of the journal you are trying to publish in
- Do not just copy or almost repeat the abstract. You should be able to tell everybody why your paper is cool.

- **Suggest referees**

- We do take these into consideration and sometimes they are really helpful
- Not just buddies or your usual coauthors. Often, they will decline to review due to Conflict of Interest and the end result is that we have wasted resources and wasted your time.

Rejection without external review

Refereeing is a free activity

Everybody is busy

Some papers do not seem that suitable

We prefer to save everyone's time and reject upfront



AUTHORS

- ❖ Do not have to wait for a foreseeable? rejection
- ❖ Tells you that something might be wrong with your paper (somebody did not “get” it)
- ❖ Help you gauge your standards and the journal' scope

REFEREES

- ❖ Ease the load
- ❖ Prune away potentially unsuitable papers
- ❖ Help focusing your efforts on reviewing papers you are really interested in

EDITORS

- ❖ Devote our time to papers that can make it through the process.
- ❖ Cut processing time
- ❖ Improve attention to the suitable papers.

A good report is also good scientific work

A referee is not necessarily just expressing his/her opinion, but is a representative of the community and potential readers. Take that into account.

Stick to the scientific arguments. Refrain from *Ad hominem* comments

Address the publication criteria of the journal in your report

Use the Comments to Editor to comment on other issues and/or alert the Editor of other facets of the work that he/she might not be aware of, such as Conflict of Interest, potential serial publication, plagiarism...

Read/Study the paper carefully. If you do not think you can/wish to put the time, let us know as soon as possible. It is OK to decline an invitation to review. Please, suggest alternative colleagues and/or postdocs or graduate students. Help mentoring the new generation of referees.

If you are in doubt about how to focus your report or in any other step in the process, consult our information to referees or contact the Editor

A resubmission can change the (projected) fate of the manuscript

Take the criticism constructively. Somebody read your paper and found those issues. If not solved, these would come up later and would undermine the whole paper.

Stick to the scientific arguments. Refrain from *Ad hominem* comments. This includes the Comments to the Editor

Take your time. The Physical Review does not have a deadline for resubmission

If you feel strongly about something, defend it scientifically. If you do not how, then you might be wrong or your understanding might not be at the level of your claims.

Be brief, but thorough. Explain all you need to explain in the minimum amount of words/space.

Make a list of changes or, better yet, produce a marked manuscript.

Read your paper again and let a colleague read your response and your revised manuscript

After the last round of review: The paper did not make it

Do not take it personally. You have learned of possible shortcomings of your paper and, thus, it should now be an stronger manuscript for another journal....

...however, you may choose to appeal the decision.

- We do not keep tabs on who appealed when. We only ask that you are reasonable, i.e. do not appeal every rejection.
- No repercussions. Future and concurrent submissions are not affected
- Politeness is the name of the game. We (Editors) do not make random decisions. Attacking us or the referees is unproductive.

Your paper was accepted. CONGRATULATIONS!!

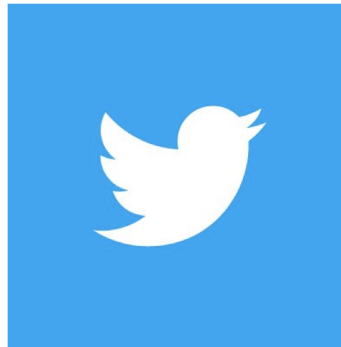
Wait for the proofs and read them carefully. It is better to correct a mistake then than having to do it later when the paper is “on print”

- ✓ **Revise the list of authors. Are you sure that everybody that contributed to the making of the work has been given proper credit?**
- ✓ **Take a look at your figures again. Are they all the same size?. Do they have similarly looking lettering and labelling?.**
- ✓ **If you have Supplementary Material, is there a link to it in the main text?. Are all your movies, tables, or codes in there and have you uploaded a README file with a description?**

Please, contact the editorial office for any questions you may have on this

Second wind for your paper. Beyond publication

The Physical Review journals have a few mechanisms to highlight your paper after publication



@PhysRevLett @PhysRevResearch

@PhysRevE

@PhysRevX

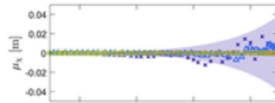
@PhysRevAB

Editors' Suggestion

Persistent random walks of charged particles across magnetic field lines

M. Baquero-Ruiz, A. Fasoli, I. Furno, F. Manke, and P. Ricci

Phys. Rev. E **102**, 053206 (2020) – Published 4 November 2020



The motion of a charged particle in a magnetic field can be modeled as a persistent random walk subject to elastic collisions. When compared with experiments and simulations, this model explains certain transient nondiffusive properties that are seen in plasma experiments.

[Show Abstract](#) +

PDF

HTML

Featured in Physics

Editors' Suggestion

Weakly Magnetized, Hall Dominated Plasma Couette Flow

K. Flanagan, J. Milhone, J. Egedal, D. Endrizzi, J. Olson, E. E. Peterson, R. Sassella, and C. B. Forest

Phys. Rev. Lett. **125**, 135001 (2020) – Published 25 September 2020

PhysICS

Focus: [Reproducing Space Plasma in the Lab](#)



Electromagnetic fields rotate a plasma and produce conditions that resemble the region around a newly forming star.

[Show Abstract](#) +