Part of SPRINGER NATURE

Inside Nature:
Decisions & Editorial Process
2D van der Waals Spin Systems

Tobias Rödel (Nature)

nature research

Please ask questions at any time

Nature and other Nature journals

scientific publishing

editorial process (decision, peer review, publication)

job as an editor

2D vdW (spin) systems … many Nature publications

2017

Ferromagnetism in monolayer vdW crystals

Gong et al., *Nature* **546**, 265–269 (2017)

Huang et al., *Nature* **546**, 270–273 (2017)

2018

Correlated phases in twisted bilayer graphene

Cao et al., *Nature* **556**, 43–50 (2018)

Cao et al., *Nature* **556**, 80–84 (2018)

2019

Moiré excitons in TMDC heterostructures

Seyler et al., *Nature* **567**, 66–70 (2019)

Tran et al., *Nature* **567**, 71–75(2019)

Jin el al., *Nature* **567**, 76–80 (2019)

Alexeev et al., *Nature* **567**, 81–86 (2019)

time

2020

Many publishers…

APS physics

AAAS
ADVANCING SCIENCE, SERVING SOCIETY

ACS Publications
Most Trusted. Most Cited. Most Read.

ELSEVIER

WILEY
Publishers Since 1807

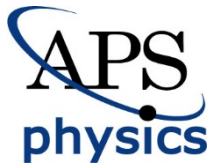
AIP
American Institute of Physics

IOP
Institute of Physics

SPRINGER NATURE

nature research

Many publishers…



Different publishing philosophies:

- Professional or academic editors
- Independent editors or academic board
- Strong or weak initial editorial screening

The Nature Research portfolio

Widest importance and implications.

Significance should be obvious to any scientist working in any field of research.

Most relevant advances in a field.

Significance should be apparent to anyone in that discipline.

Highly significant advances that influence a field.

Broad appeal isn't a prerequisite for publication… but great science is.

Important insights into focused areas of research.

New open access options reporting high-quality findings.

Technically sound, quality science.

Significance is less important than sound science.

Why publish with Nature?

Filtering and synthesizing.

Select, validate and publicize the most important scientific advances.

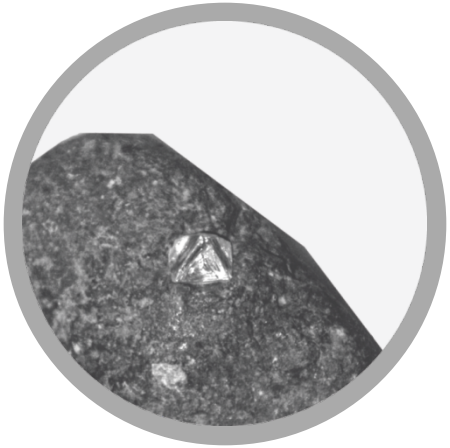
Being innovative and leading in matters crucial to science and society.

Science communication at Nature: researchers – manuscript editors – science journalists – public

nature.com
8.4 million unique users per month
Global audience

Role of Nature's scientific publishing in science & society

Filter



manuscript editors

Enhance

peer reviewers
manuscript, journalistic, copy & art editors

Amplify

reputation
reach

How many scientific papers are published each year?

… How many do you read?

Source: National Science Foundation

TABLE 1. Science and engineering articles, by country or economy: 2007 and 2017

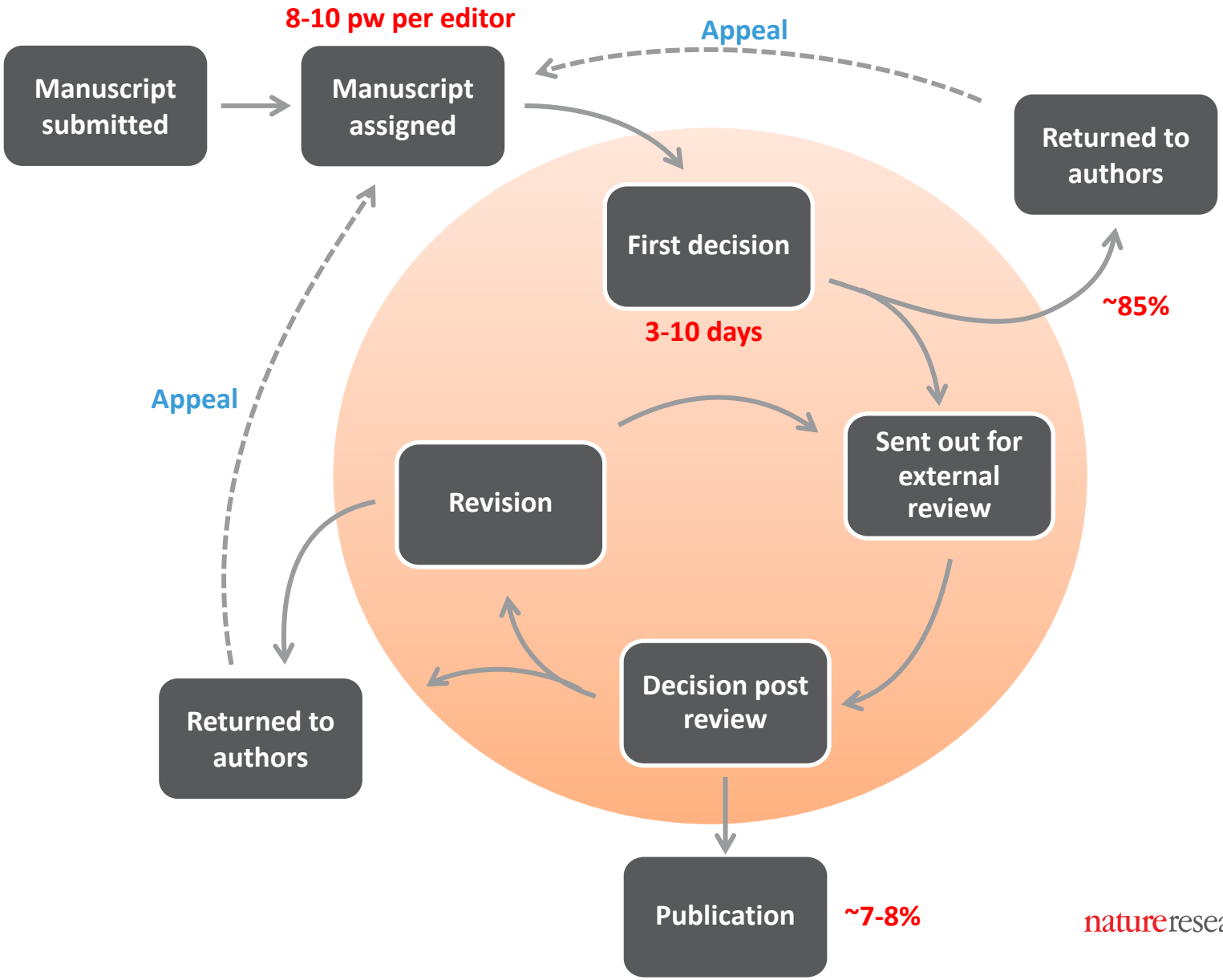
Rank	Country or economy	2007	2017	Average annual growth rate (%)	2017 world total (%)	2017 cumulative world total (%)
-	World	1,673,077	2,422,608	3.99	100.00	-
1	China	215,755	456,960	8.43	18.86	18.86
2	United States	393,806	423,529	0.83	17.48	36.34
3	India	43,755	121,960	11.07	5.03	41.37
4	Germany	89,285	105,596	2.00	4.36	45.73
5	United Kingdom	92,720	99,297	0.97	4.10	49.83

Over 2.4 million scientific papers are published each year

Researchers read around 250 articles per year

!!! Filtering essential !!!

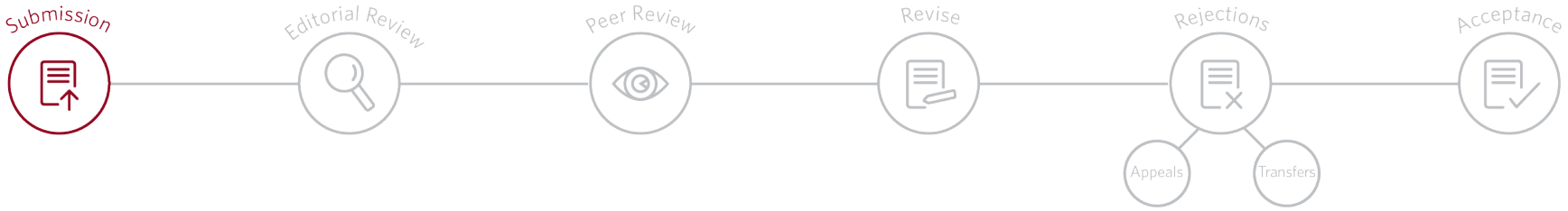
Filtering in practice: editorial workflow



Key takeaways

- Get your **main message across**.
- Your **handling editor will guide you** through the editorial process.
- We look for **papers with potential**.
- Editors, not referees, take the **ultimate responsibility** for decisions.
- The goal of peer review is to **improve papers**.
- Make the **most of your opportunity** to revise.
- We consider appeals in cases where the **concerns can be resolved.**
- Our manuscript transfer system gives you **options**.

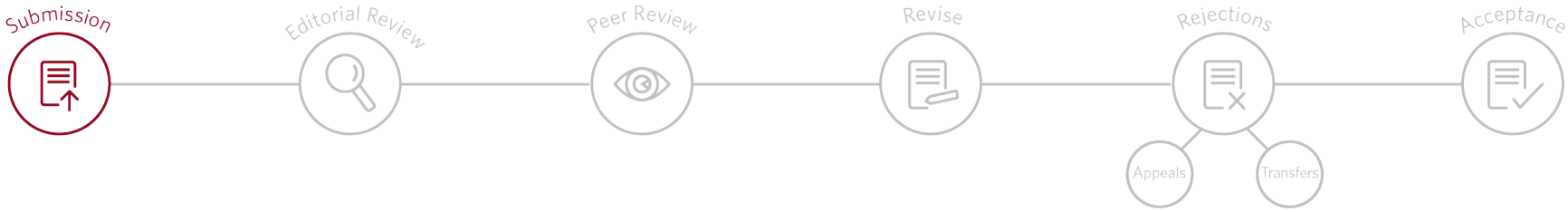
Submitting your paper



Get your main message across.

- For initial submission, your paper does not need to be in *Nature* style
- Be sure to familiarize yourself with our editorial and publishing policies prior to submission
- Include a cover letter to the editors with your submission

Tips on cover letters



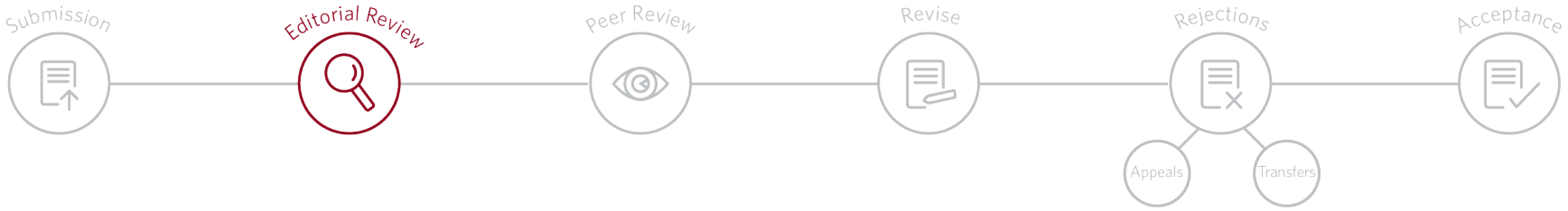
Your chance to:

- Talk to the editor confidentially
- Explain the importance of the findings
- Put the work in context

Be sure to mention:

- Reviewer **suggestions**
  (Please, no former supervisors, recent or current collaborators, friends, or relatives.)
- Any **reviewer exclusions**
  (up to three individuals; exclusions within our guidelines are always honored)
- **Related papers** submitted elsewhere or in press
- **Competing papers** or other special circumstances

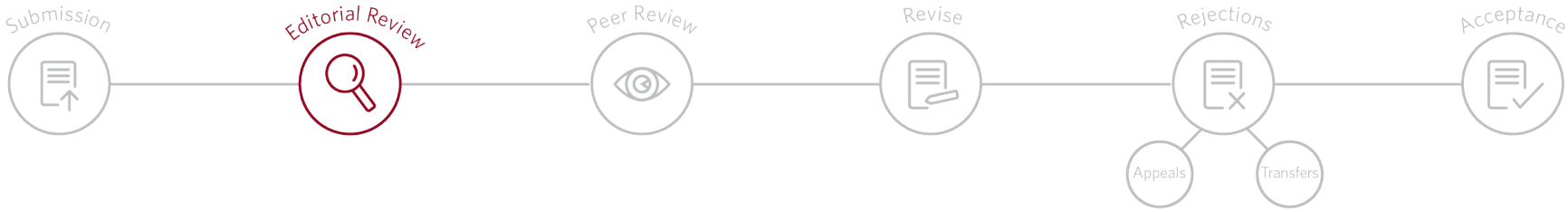
Initial editorial evaluation



Your handling editor will guide you through the editorial process.

- The handling editor reads the full manuscript to determine whether it is potentially suitable for the journal.
- The handling editor decides whether to send the paper to peer review, often in consultation with other editors on the team.
- The handling editor might request additional information before making a decision.
- Timeliness is a priority: we aim for initial decisions within a week.

What are we looking for?



We look for papers with potential.

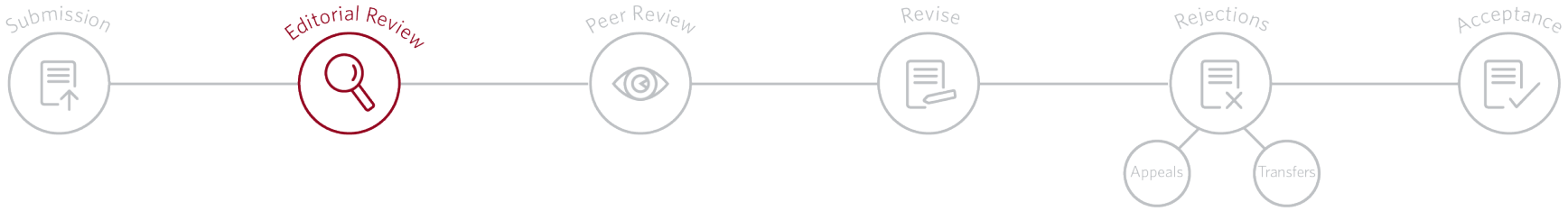
General:

- Relevance to the journal's readership
- Significance of the findings
- Strong support for conclusions

Specific:

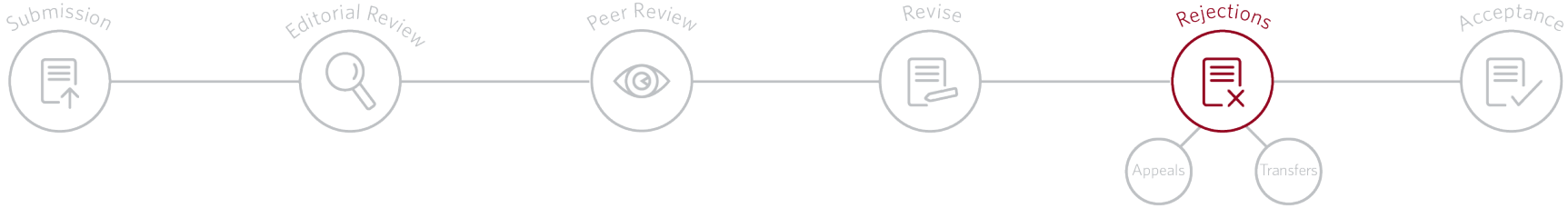
- Conceptual novelty with important implications
- Mechanistic insight / ending controversy
- Technological advance
- Originality or unexpected findings
- Change of our understanding / new opportunities
- General applicability
- High-quality data
- Societal relevance

Is it all about impact?



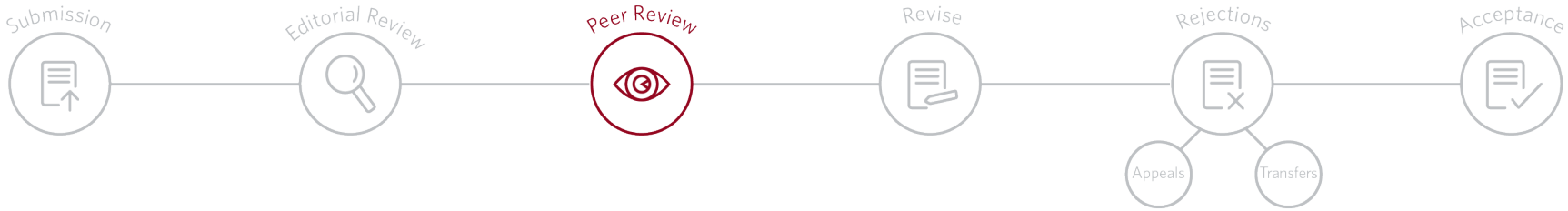
- Citations are **NOT** everything
- We look for **papers that matter to the field**, even if they don't have high citation potential
- We are scientists who **understand the value of your work**

Reasons for rejection without peer review



- Similar findings in the published literature / too incremental
- Lacking direct experimental support for key conclusions / too preliminary
- Essential criteria missing, such as conceptual/ technological advance or clear practical implications

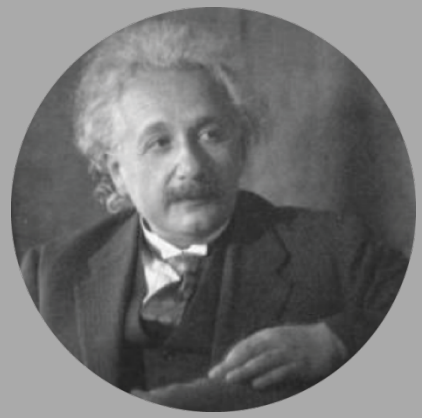
Peer review – the cornerstone of all scientific publishing



- All research content is peer reviewed
- Editors pick peer reviewers who can evaluate the paper in an unbiased way
- Reviewers are asked for advice on technical and conceptual aspects of the work
- The decision is made by the editor, not the reviewers
- We experiment to improve peer review

Peer review is a modern tool

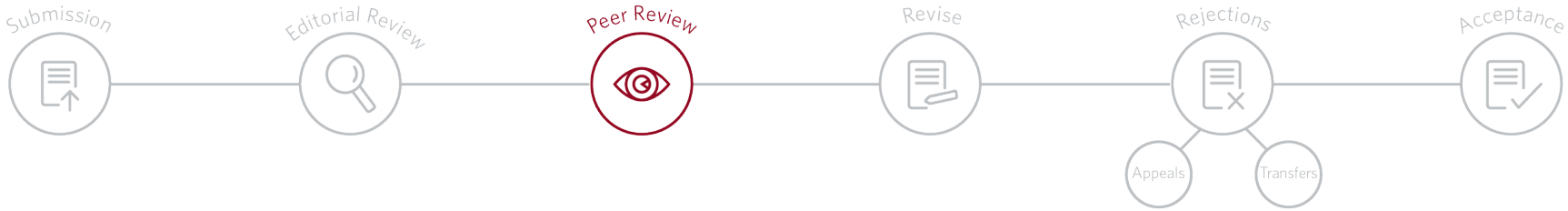
A paper on gravitational waves written by Einstein and Rosen was rejected by Physical Review on 23 July 1936. Einstein's only encounter with peer review!



His response:

> *Dear Sir,*
>
> *We (Mr. Rosen and I) had sent you our manuscript for publication and had not authorized you to show it to specialists before it is printed. I see no reason to address the — in any case erroneous —comments of your anonymous expert. On the basis of this incident I prefer to publish the paper elsewhere.*
>
> *Respectfully,*
> *Albert Einstein*

Anonymity in peer review

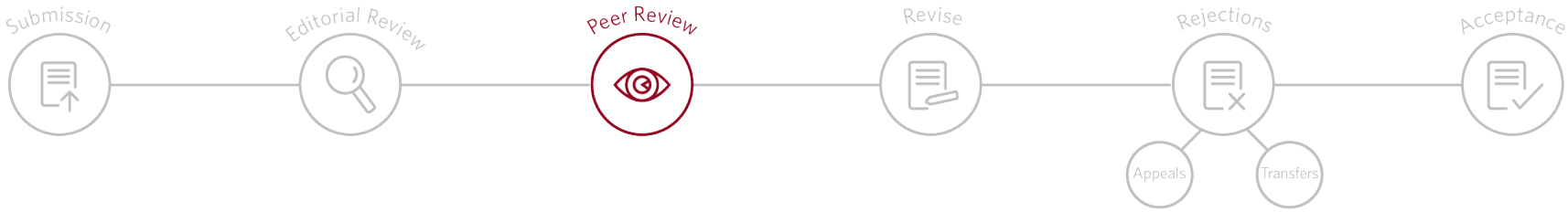


Why reviewers are anonymous

- Prevents bland, timid reviews
- Reduces opportunities for favor trading
- Helps scientists stay collegial
- Corrects for power imbalance

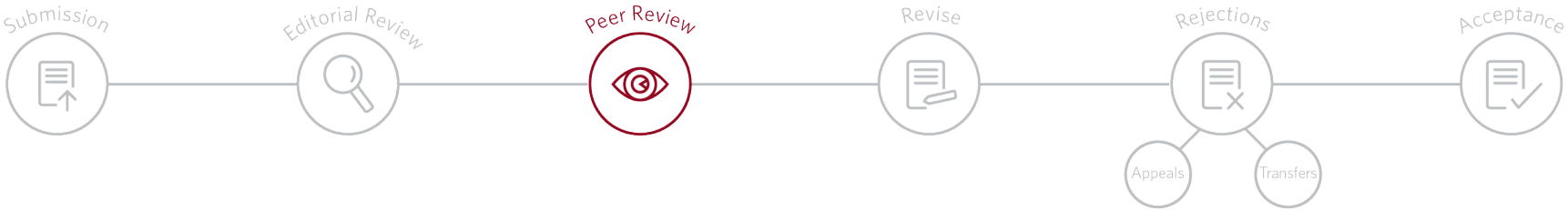
We also offer double blind peer review as an opt-in for authors at all Nature titles and the option to reviewers to print their names in the published manuscript (reviewer accreditation trial).

Transparent Peer Review



- Anonymised referee reports are published with the paper.
- Reviewers can sign their reports if they wish
- Any confidential information is redacted
- Editorial correspondence and decision letters are not currently included

How we choose reviewers



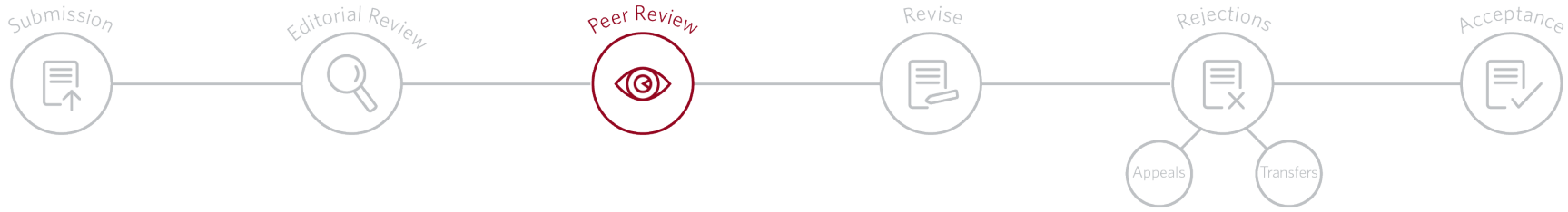
A good peer reviewer has:

- Technical expertise and knowledge of the field
- A fair and constructive attitude
- No conflicts of interest
- Good attention to detail
- A big picture view
- Familiarity with journal standards

Our editors:

- Seek to increase diversity in the reviewer pool
- Honour author exclusions (within reason)
- Involve as many reviewers as needed (three is standard)
- Are alert to inappropriate reviewer behaviour

Reviewer assessment



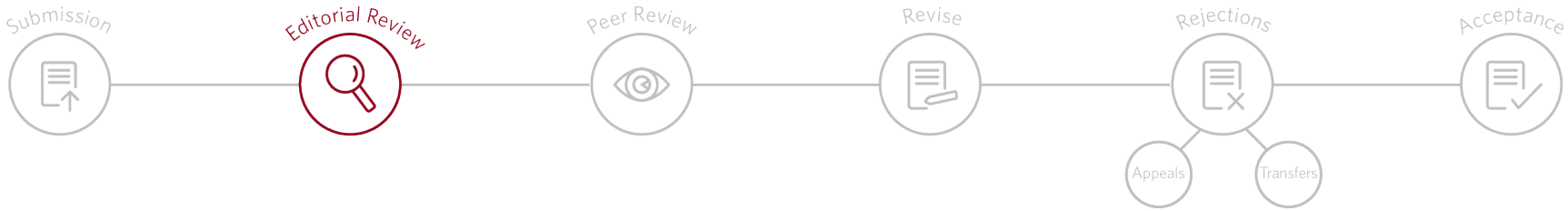
Reviewers assess whether:

- Conclusions are supported
- Data are of high quality
- Appropriate controls have been used
- Experimental approach and analyses meet the field standards
- Sufficient methodological information is provided

Reviewers advise on:

- Extent of scientific advance
- Interest to the field
- Potential impact on future research
- Overlap with previous work

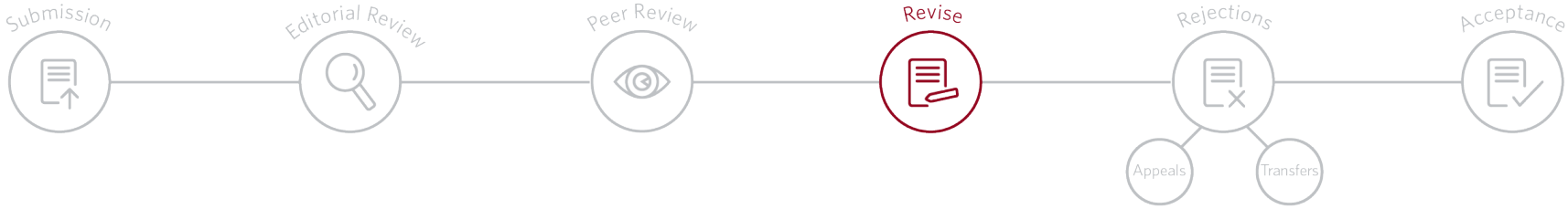
How our decisions are made



Editors, not referees, take the ultimate responsibility for decisions.

- **We don’t count votes**; we consider arguments
- We make our own decisions and **do overrule reviewers**, both positive and negative
- We **use our judgment** on which of the reviewer requests are feasible
- We uphold strong **rigorous standards** for review

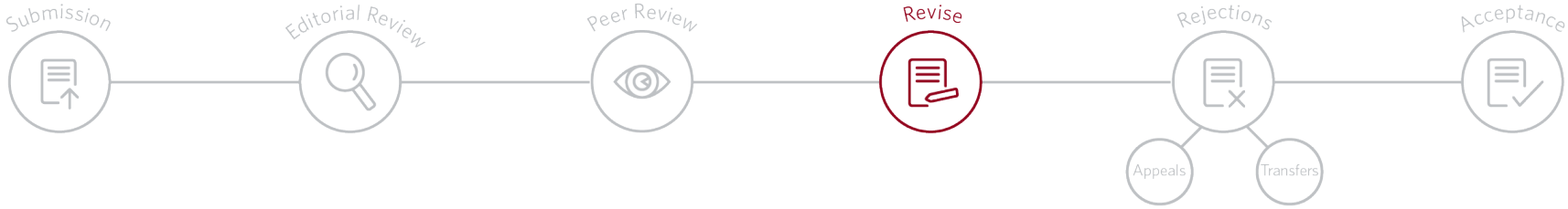
When you are invited to revise



The goal of peer review is to improve papers.

- Aim to **address the major issues**, particularly those emphasized by the editor
- Remember that we try to avoid **ineffective revision cycles** and numerous rounds of review
- **Consult with your editor**, who can provide guidance authors and resolve disputes,

Addressing the referee reports



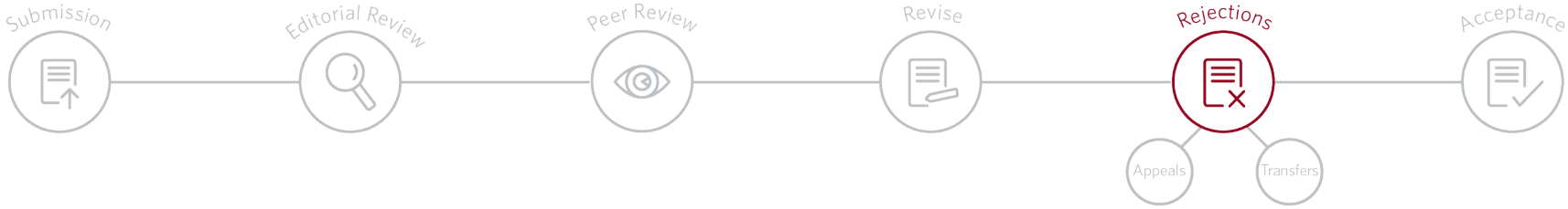
Make the most of your opportunity to revise

- Resubmit only after you have addressed all key points
- If further experiments are needed, don't dismiss critical requests
- Expect that your revised manuscript will go back to the reviewers and respond to their points

An effective point-by-point response

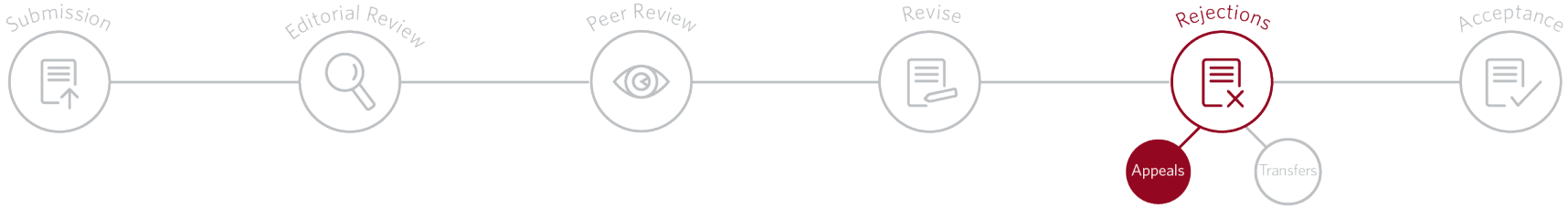
- Views the critiques as an opportunity for improvements
- Explains why specific points have not been addressed
- Is professional and diplomatic

Reasons for rejection after review



- The conclusions are **not sufficiently supported**
- There are significant **technical concerns**
- The interpretation is **ambiguous or flawed**
- The findings are **not sufficiently novel**
- The results are **not significant enough** for the field
- The paper lacks a **critical element** (such as mechanistic insight)

Appeals



We consider appeals in cases where the concerns can be resolved.

Reasons to appeal

You have additional data that have been identified as essential for the study

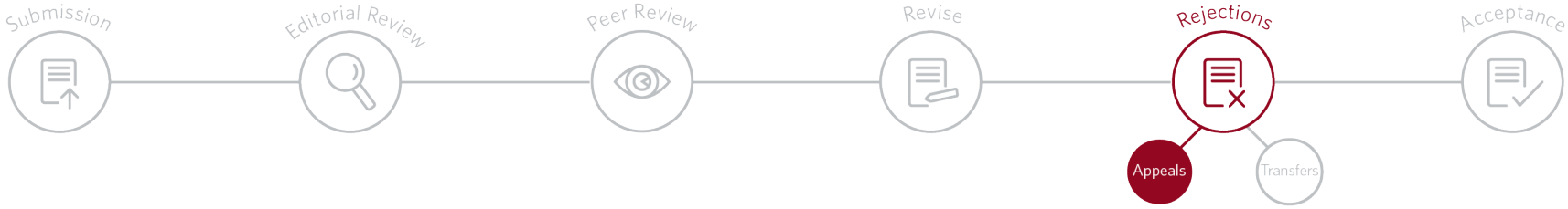
There were factual errors in the reviews or the editor's comments

You have specific, concrete evidence of reviewer bias

When appealing is not the best choice

When there are subjective disagreements on novelty or significance

How to appeal



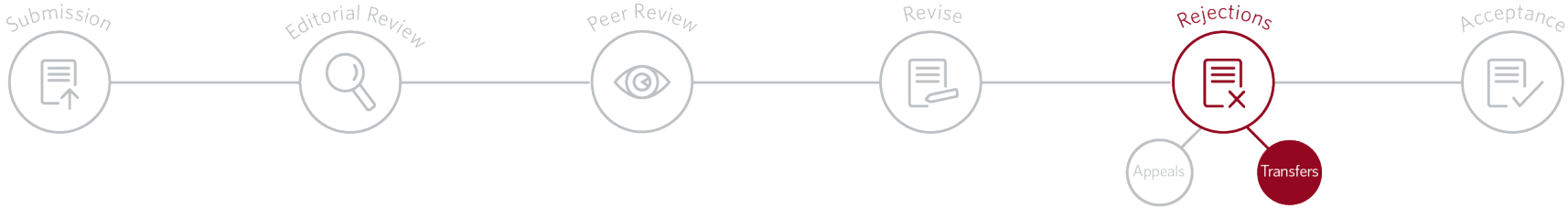
Do:

- **Present new data** to address issues raised in review
- Argue **scientifically**
- Discuss how the findings **extend previous work** in the field

Don't:

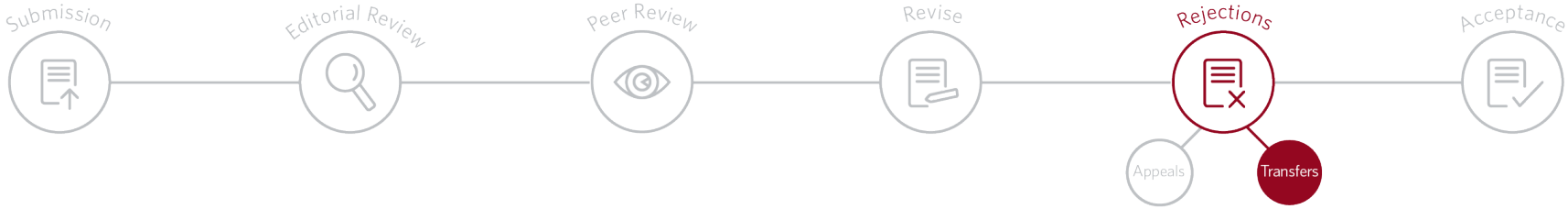
- Simply **rewrite the paper**
- Make **unsubstantiated claims of bias**
- Try to guess the **referees' identities**
- Rely on **'celebrity endorsements'**
- Rely on **your reputation**
- **Criticize previous papers** in the journal

Manuscript Transfer at Nature Research



If your paper was not a good fit for the first journal you submitted it to, you can transfer it to another Nature Research journal.

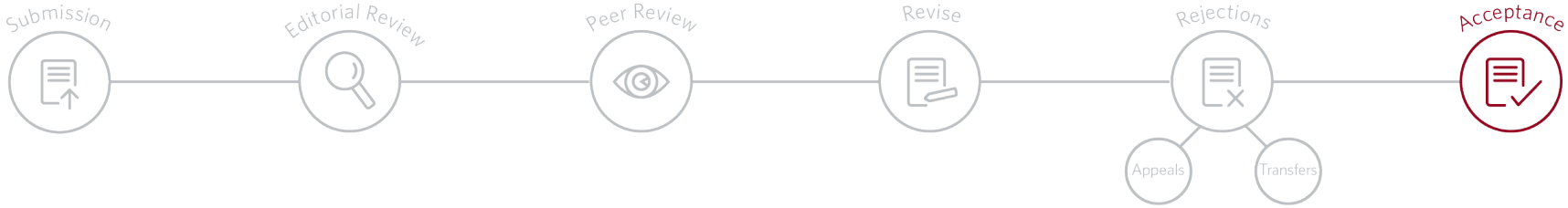
Manuscript Transfer at Nature Research



Our manuscript transfer system gives you options.

- It's the **author's choice**: you can opt-out of consultations between journals
- Even if you opt out, you can still **transfer after receiving a decision**
- You can transfer papers **with or without peer review**
- For peer-reviewed papers, we share **reviewer reports and identities** and you can provide **a response to the reviews**
- The editors at the receiving journal will make an **independent decision**
- If you want a fresh start, you should **submit your paper as a new manuscript**

Giving your work the care and attention it deserves



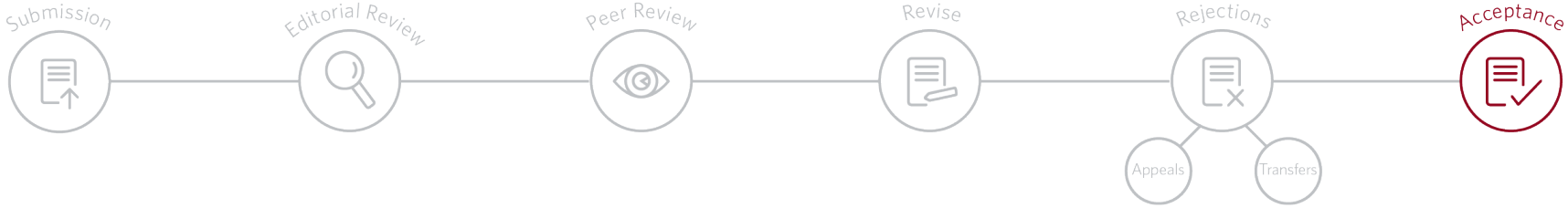
Our production teams

- copyedit your manuscript to ensure accuracy and get it into house style
- layout your text and figures to maximize visual appeal
- ensure that your Supplemental Information is well-structured and discoverable
- ensure that linked datasets and methodological information are readily accessible

Global visibility

- We promote your paper through multiple channels- our press office, our social media accounts, and on our websites
- We may feature your paper with News & Views or Research Highlights

Don’t forget to connect yourself to your work!



ORCID

- ORCID connects researchers and innovators to their contributions and affiliations.
- Your ORCID iD is a unique identifier that distinguishes you from every other researcher and allows you to showcase your work.
- Many publishers require ORCID iDs, and they are mandatory for corresponding authors at many *Nature* titles.

Registration takes 30 seconds at http://orcid.org

1. **REGISTER**
2. **ADD YOUR INFO**
3. **USE YOUR ORCID ID**

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Thank you

Any questions?

Nature

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The story behind the image

Antarctica meltdown could double sea level rise

Researchers at Pennsylvania State University have been considering how quickly a glacial ice melt in Antarctica would raise sea levels. By updating models with new discoveries and comparing them with past sea-level rise events they predict that a melting Antarctica could raise oceans by more than 3 feet by the end of the century if greenhouse gas emissions continued unabated, roughly doubling previous total sea-level rise estimates. Rising seas could put many of the world's coastlines underwater or at risk of flooding and storm surges.