



***Editorial Organisation and Practical Experience of
International Academic Journals:***

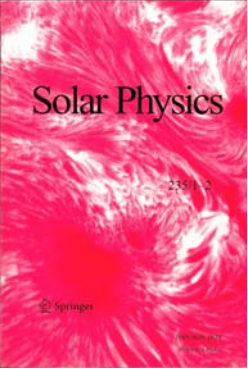
Editing an International Peer-Reviewed Journal

Lidia van Driel-Gesztelyi
Editor in Chief, Solar Physics



Lidia van Driel-Gesztelyi
Editor in Chief, Solar Physics

- **Introduction**
 - Introducing the Journal, our Subject, the Editorial Team & Board
 - Selection criteria for EiC & Self-introduction
- **Handling papers: From assignment to publication**
 - Peer-review process,
 - Decision-making; difficult judgements, adjudication
 - Number of revisions; Acceptance and proof reading
 - Special/Topical Issues: Advantages and Caveats
- **Other editorial tasks and issues**
 - Editorials
 - Dealing with plagiarism
- **Measures of evaluation: Citation statistics & impact factor**



Solar Physics: basic facts

- *Solar Physics* was founded by **Zdenek Svestka** and **Kees de Jager** in 1967.
- It is the **principal journal** for the publication of the results of ***fundamental research on the Sun***.

The journal treats all aspects of solar physics, ranging from the

- **internal structure** of the Sun and
- **its evolution to the outer corona** and
- **solar wind** in interplanetary space.

Papers on **solar-terrestrial physics** and on **stellar research** are also published when their results have a direct bearing on our understanding of the Sun.

A precise scope statement is of fundamental importance for major journals!

Introducing our editorial team

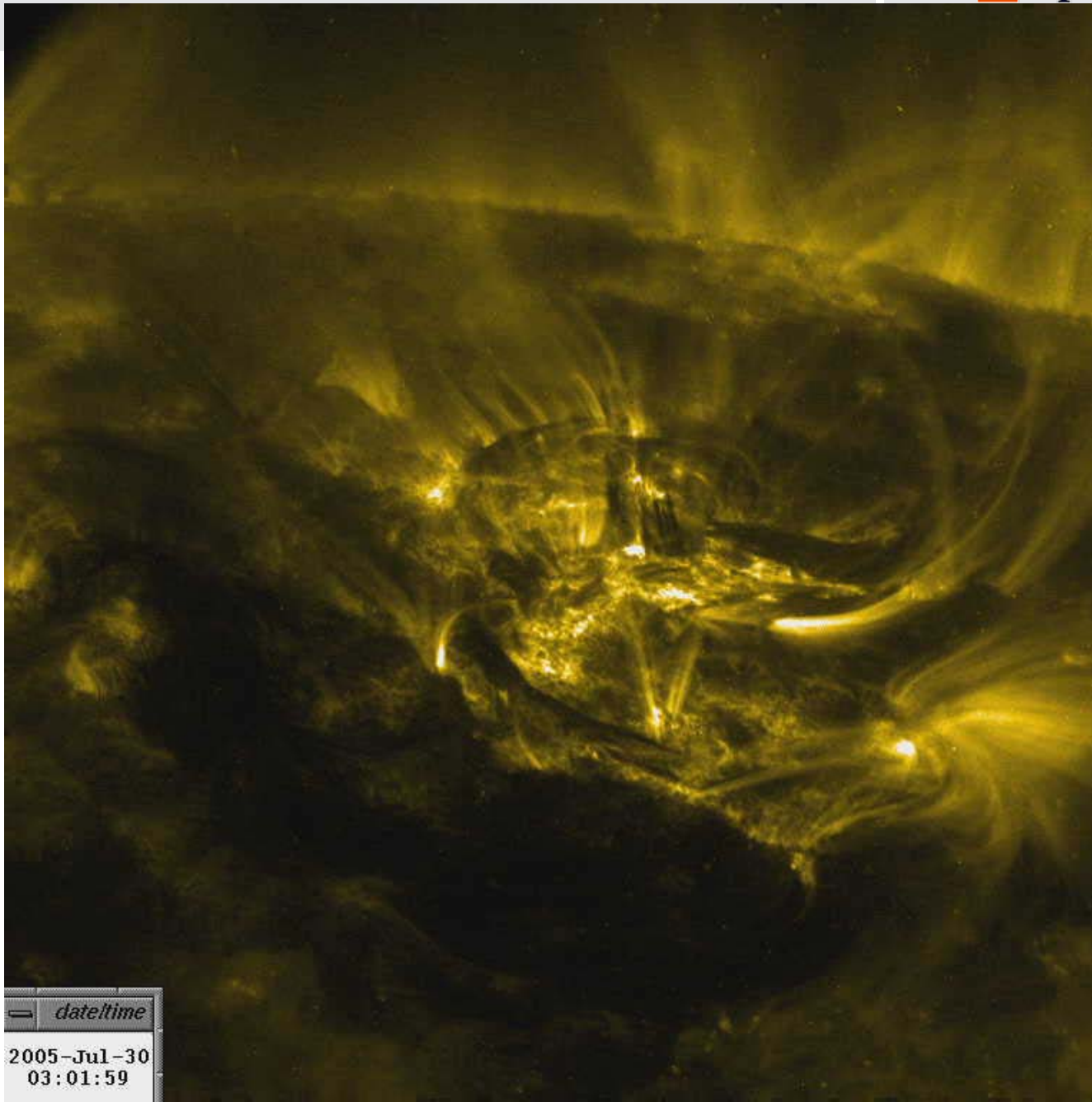


Lidia van Driel-Gesztelyi
EiC Solar Physics

- Sustained publication of high-quality papers reporting on relevant science.
- Processing times commensurate with the expectations of the authorship/readership.

QuickTime?and a
YUV420 codec decompressor
are needed to see this picture.

Lidia van Driel-Gesztelyi
EiC Solar Physics



*Courtesy
NASA's
TRACE
spacecraft*

`datetime`
2005-Jul-30
03:01:59

The editorial team: 3 EiCs - expertise

John Leibacher, USA
expertise: solar interior

Takashi Sakurai, Japan
expertise: theory

Lidia van Driel-Gesztelyi, France, Hungary, UK
expertise: observations



Lidia van Driel-Gesztelyi
EiC Solar Physics

- Consists of 32 regular EdBd members and 13 honorary members, who are the most highly esteemed solar physicists.
- They form four groups of eight members, whose term ends in consecutive years, thus each year a slate of eight members get (re)elected for a four-year term. The Chair of the EdBd is elected for one year from members of the longest-serving group.
- Being elected into the EdBd is considered a great honour and comes with a free electronic subscription of the Journal.

TASKS:

- The Chair and Members of the Editorial Board serve as advisors to the EiCs.
- Are consulted in case of cases of problematic cases, e.g. plagiarism.
- Advise the EiCs on Topical Issues provide feedback on the running of the Journal.
- Are more frequently asked to review manuscripts.

How were EiCs chosen for Solar Physics?

- Member of the Editorial Board - elected on **academic esteem**.
- Long-term **outstanding record as peer reviewer** - proven interest in anonymously helping colleagues to improve their scientific output.
- Proven **interest** in the well-being of Solar Physics, our community's only topical journal - active participation in discussions of the EdBd.
- Ensuring geographic diversity: Europe, Americas, Asia
- Following traditions, at Solar Physics there are **three Editors in Chief**, who are also **Managing Editors**, with hands-on experience in all stages of the editorial and publication process.
⇒ **Willingness to put in long extra hours in order to serve the community.**

- MSc at Eötvös University, Budapest, Hungary (1974)
- PhD at Charles University, Prague, Czech Republic (1990)
- DSc at The Hungarian Academy of Sciences (2004)
- I have worked in six countries in seven institutes/universities
Hungary → The Netherlands → Japan → France → Belgium → UK
- At present, I am
 - *reader* in solar physics at the University College **London** (UK)
 - *scientific consultant* at Konkoly Observatory, **Budapest** (Hungary)
 - *associated researcher* at **Paris** Observatory (France)→ ***I am present (part-time) in three different scientific communities...***
- **Author** of >100 peer-reviewed papers, >10 review papers on different topics and I have broad scientific collaborations (>100 co-authors).
- I **teach** undergraduates and MSc students in London, supervise PhD, master and summer students.
- I am **active in scientific organizations**, member of committees and consortia.
- I am **President of Commission 10** (Solar Activity) of the **International Astronomical Union**.

- It is a highly respected assignment, so adds **esteem**.
- We are in constant touch with the newest developments in science, so it adds **insight**.

- But it adds a **great deal of work** to our already full-time academic workload!

- *How much time does it take to do the work of a journal Editor in Chief?*

- Solar Physics publishes 7 volumes / yr \approx 174 papers (5-yr average).
- We reject \approx 30% of papers submitted to us.
- Thus we handle about 250 papers / yr \Rightarrow 83 papers / yr / Editor.

- **Introduction**
 - Introducing the Journal, our Subject, the Editorial Team & Board
 - Selection criteria for EiC & Self-introduction
- **Handling papers: From assignment to publication**
 - Peer-review process,
 - Decision-making; difficult judgements, adjudication
 - Number of revisions; Acceptance and proof reading
 - Special/Topical Issues: Advantages and Caveat
- **Other editorial tasks and issues**
 - Editorials
 - Dealing with plagiarism
- **Measures of evaluation: Citation statistics & impact factor**

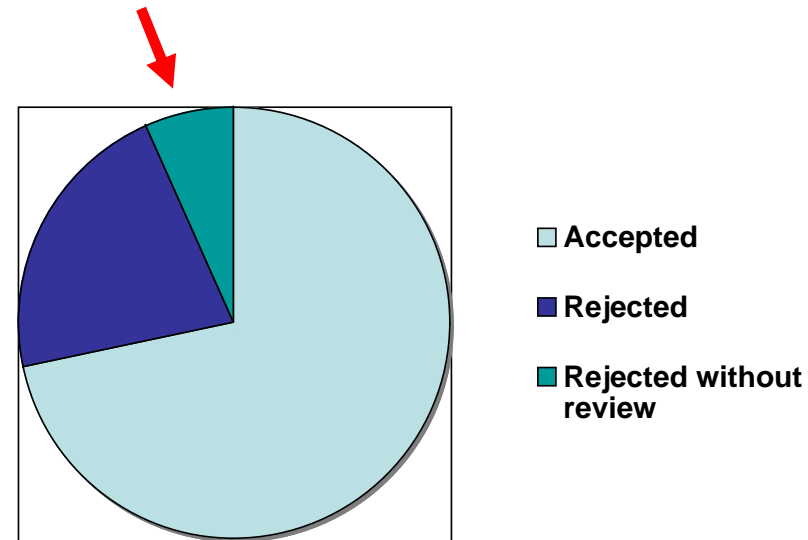
- Paper is **submitted** through the Editorial Manager.
- Our editorial assistant, Randy Cruz **assigns** it to one of the Editors on an *≈ evenly distributed* workload basis.
 - There are exceptions (Topical Issues are handled by one Editor)
 - We exchange assigned papers to better suit our expertise.

⇒ We **read** the title/abstract of **all** the papers submitted to us.
+ we discuss problematic abstracts...

Time involved: 5 min/paper × 250 = **21 hr / yr** (for each of us)

- We **reject** 7% of mss **without review** (outside of the SOLA's scope, or obviously below the required standard).

- *Consideration* of rejection,
- *Discussion* with the two other Editors,
- Writing rejection *letter* (many times *custom-made!*)
- *Handling* the authors' occasional *rebuttal*

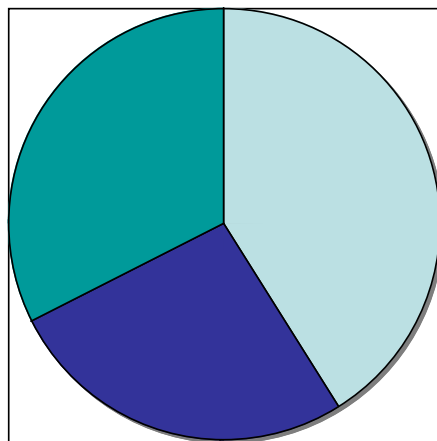


Time involved: 1 hour/ms \times 83 \times 0.07 = **6 hr / yr** (for each of us)

- We return 5% of mss to the authors: “*revise before review*” mainly for reasons of sub-standard English.

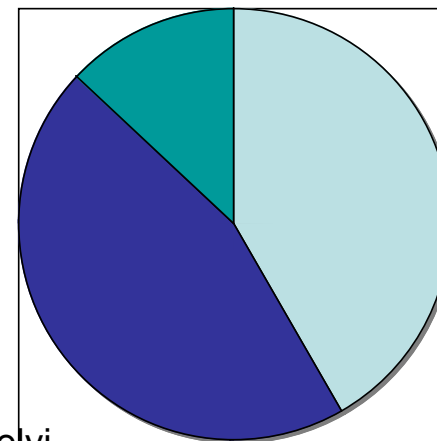
- Our aim is to find the **best possible referee** for each manuscript (ms).
- Constraints:
 - A **competent scientist**, who understands the subject and would be an *interested reader*.
 - Not a direct colleague, frequent co-author or someone who is acknowledged in the ms.
 - Not directly in *strong competition* with the authors.
 - Rather a friend than an enemy \Rightarrow importance of personal knowledge.
 - Our referee pool is small (<600), we should not abuse our best referees.

Mss submitted



■ Europe
■ Americas
■ Asia Š Pacific+
Middle East

Referees



■ Europe
■ Americas
■ Asia Š Pacific+
Middle East

Lidia van Driel-Gesztelyi
EiC Solar Physics

- Helps to improve the quality of articles published.
- Lends respectability and scientific credibility to journals who have adopted the process.
- Minimizes duplicate and redundant publication.
- Prevents poor quality from being published.
- Helps to identify fraud or plagiarism.

- A „peer“ is defined as „one that is of equal standing with another“ (Merriam Webster).
- A peer reviewer can be considered as a consultant to the editor-in-chief in his field of expertise.
- Anyone who is scientifically qualified, has a solid research background (has published in scholarly journals) and is willing to set aside time to review manuscripts and give comments to improve the quality of submitted manuscripts.
- Referees must be reliable and independent. They are required to inform the editor-in-chief of any conflict of interest that may arise.

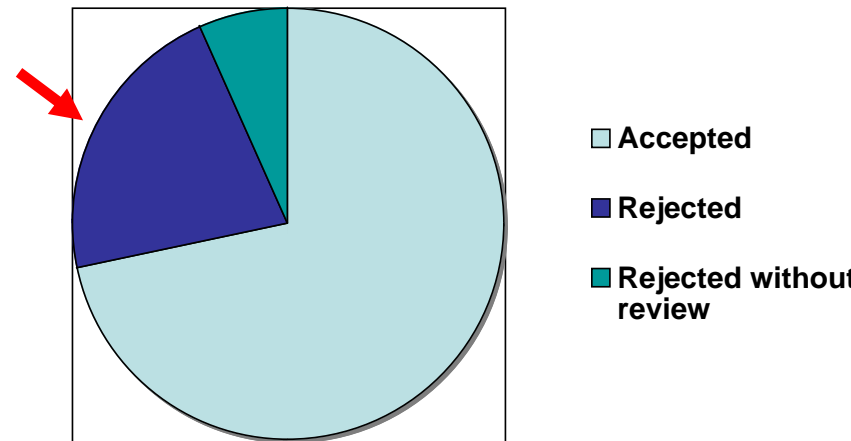
- **How much time does it take to find a referee?**
 - Shorter than it used to be, when Editors had to go to the *library* and search in books and go through volumes of journals!
→ *On-line databases* like NASA's ADS provide invaluable help.
 - The **EM** provides a *search possibility* using the authors' *keywords*.
 - The time it takes to come up with a list of possible referees depends on whether or not it is in the **Editor's field of expertise** (e.g. a narrow, highly specialised field: we ask the author to provide a list of competent referees + ADS check).
 - On average, reading the abstract, "scanning" the manuscript, searching databases and reaching a conclusion may take about 30 min/paper.
 - However, this has to be repeated for 23% of referee invitations.
- ⇒ Time involved: $30 \text{ min} \times (77 + 18 \text{ mss}) = \mathbf{48 \text{ hr / yr}}$.

- **Referee report arrives** - read it, *thank the referee*, consider it... and *make a decision*.

- If the report is **rejection**, we may discuss with the referee, invite another referee or decide on our own.

- We frequently have to handle the *author's rebuttal*

Time involved: $2 \text{ hr / ms} \times 18 = \mathbf{36 \text{ hr / yr}}$



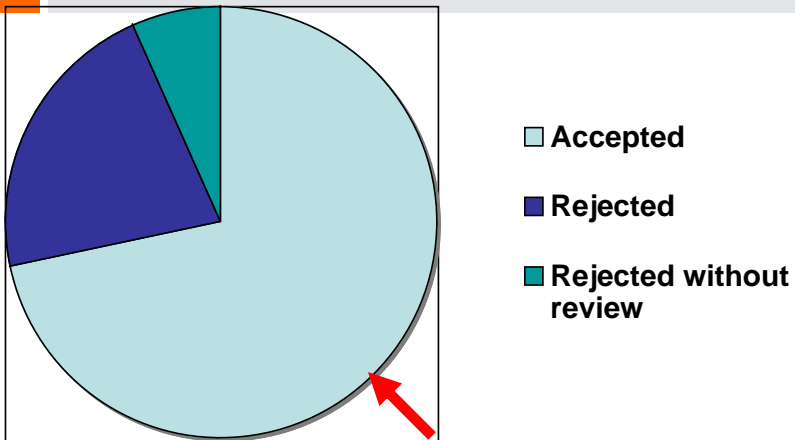
- If the verdict is "*revision*", it is easier...

Time involved: $30 \text{ min / ms} \times 60 = \mathbf{30 \text{ hr / yr}}$

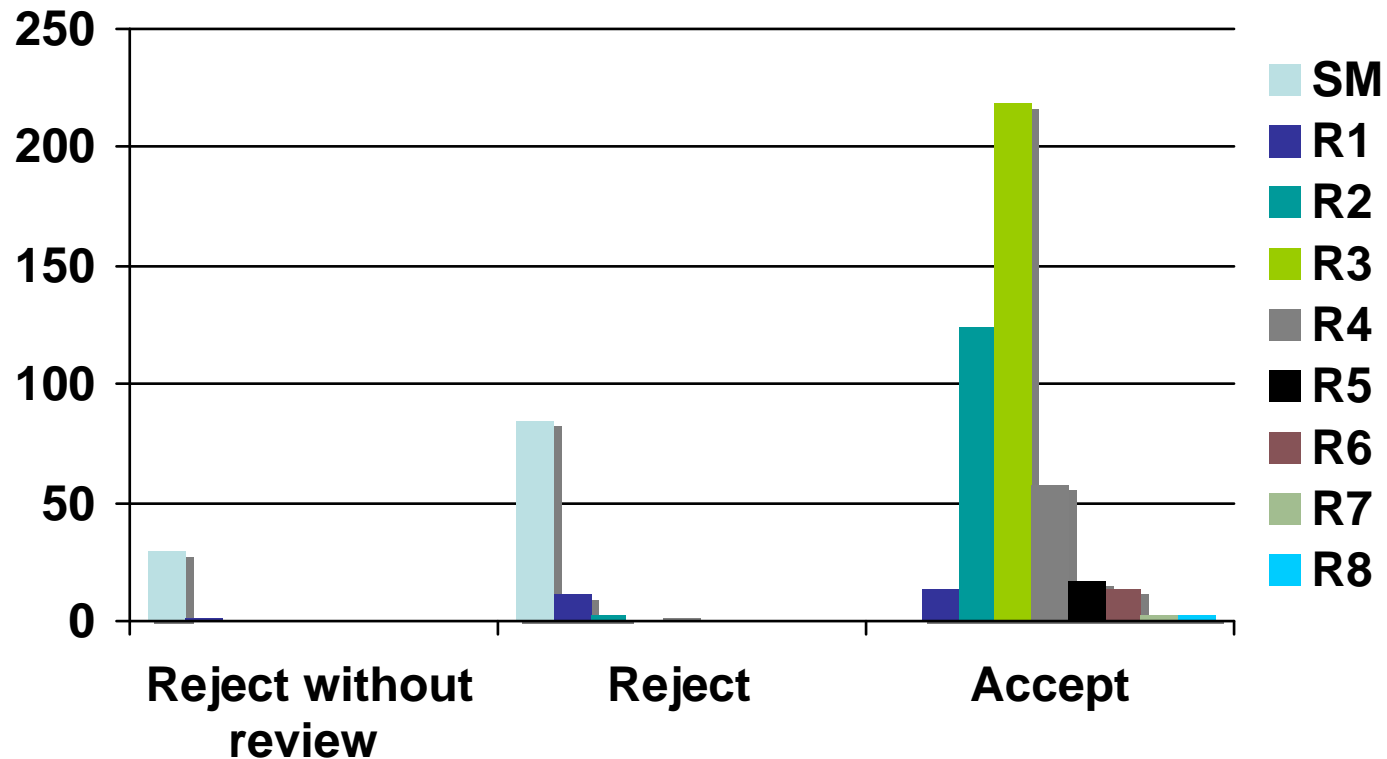
- On average, our mss go through **two revisions** with the referee.

Time involved: $30 \text{ min / ms} \times 60 = \mathbf{30 \text{ hr / yr}}$

- Finally, the referee advises us to **accept** the manuscript...
- **This is where we go differently from other journals:**
We read the ms and send editorial comments to the authors.
Time involved: 2-4 hr / ms \times 60 = **120-240 hr / yr**
- ***Why do we do this?***
 - When we started, we did not *know our referees* - this is one of the ways to learn about them.
 - The same is true for the *authors*...
 - We have a large author pool from non-native English speaking countries
 - papers from those countries need to be improved to make them understandable for the language editor (since Jan. 2007!).
 - *At start*, we had very *unreliable typesetters*, and wanted to send files to Production, which were “perfect”.
- This is one of the activities we are *slowly* cutting back on in the new workflow, but old habits die hard...

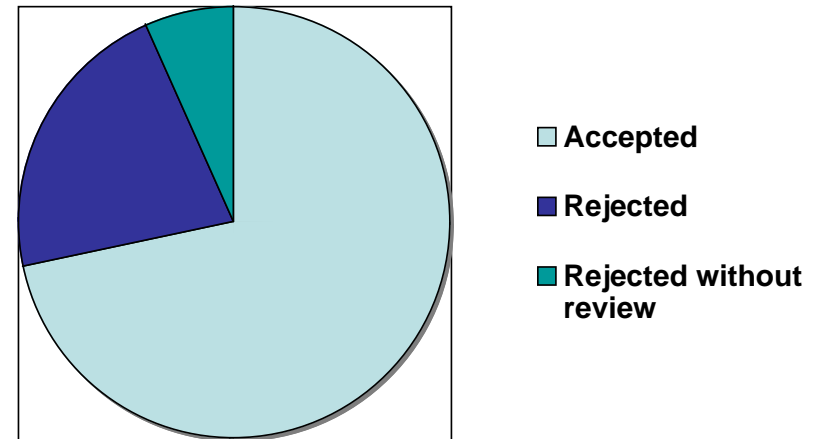


- We **accept** the manuscript after checking that all is correct.
Time involved: $20 \text{ min / ms} \times 60 = \mathbf{20 \text{ hr / yr}}$
- The ms goes through **production** and the handling editor is notified that the **proof** is ready.
- The **proofs are read and corrected** after *correspondence with the authors*.
Time involved: $1\text{-}3 \text{ h / ms} \times 60 = \mathbf{60\text{-}180 \text{ hr / yr}}$



- We reject 7% of mss on Editor's judgment.
- We reject another 23 % after review(s).
- We **accept** papers, on average **after four revisions...**

- Each Editor iC spends, on average $\approx 370\text{-}610$ **hr / yr** ($\sim 46\text{-}76$ full working days; 18-29% of 260 working days/yr) with handling papers.



- On top of this, there are other tasks...
 - e.g. I make the sequence for each issue.
- Time involved: $1 \text{ hr / issue} \times 14 = \mathbf{14 \text{ hr / yr}}$.

Median times

- Submission to first decision: 50 days
- Submission to final decision: 140 days
- Submission to publication: < 9 months (print)

Main influencing factors:

- Good choice of referees
- Automatic reminders
- Authors' time for revision
- Production times (incl. language editing)

We solicit and organize Topical Issues in order to:

- Increase the visibility of the journal.
- Attract authors, who otherwise would publish in another journal.
- Increase our citation rate.

(1) We **approach consortia** of imminent space missions proposing to publish the *basic instrumental papers of the mission*:
e.g. Hinode, Solar Dynamic Observatory.

These are “*big fishes*”, which will boost our citations.

(2) We **are approached** by communities/organizers of special conferences who would like to publish their papers together

(e.g. celebration of an outstanding scientist) - ask opinion of EdBd.

We **DO NOT publish conference proceedings**, but regularly refereed papers on the same topic! We have developed a procedure to deal with such requests.

Though there are great advantages of publishing TIs, there are great problems attached to them, too!

- Conference-attached TIs may give the impression of being *conference proceedings* ⇒ may decrease the *journal's esteem*.

- Difficulties with finding **referees**

We need a **large number of referees** from a sub-community within a short time and referee reports with no delay...

- Heavy **workload** of the handling Editor - it becomes a full-time job!

The TI is handled by one of the Editors, who receives mss within a week or two equivalent to a few months' of assignments (35-40) - a great workload on top of the mss which are in process.

- Unequal handling time

Some papers get accepted fast, others go through several revisions ⇒ mss will stay long in "*online first*" stage, waiting for the slow ones.

After the first tough lessons from handling TIs, a **new workflow** emerged:

Action to *conserve our esteem*:

- We publish in newsletters (e. Solar News) a “call for papers” for a TI in a certain subject, emphasizing that they will go through a regular refereeing process.

Difficulties with finding referees

- In the “call for papers” we ask for an LOI (incl. abstract) six weeks prior to the submission deadline.
- We involve the Guest Editors in suggesting an evenly distributed list of referees (e-mail, telecon).

Heavy workload of the handling Editor

- In the heaviest duty (reading before acceptance) we **involve the Guest Editors**.
- Share the work with another managing Editor...

Unequal handling time

- We **set a deadline** for the TI - papers, which do not get accepted by then, are published in regular issues.

- **Introduction**
 - Introducing the Journal, our Subject, the Editorial Team & Board
 - Selection criteria for EiC & Self-introduction
- **Handling papers: From assignment to publication**
 - Peer-review process,
 - Decision-making; difficult judgements, adjudication
 - Number of revisions; Acceptance and proof reading
 - Special/Topical Issues: Advantages and Caveats
- **Other editorial tasks and issues**
 - Editorials
 - Dealing with Plagiarism
- **Measures of evaluation: Citation statistics & impact factor**

- At the start of each year we publish an “**Editorial Appreciation**”: the list of our **referees** during the previous year.
 - This is a way to thank our consultants, who help us evaluating the papers.
 - It helps our referees to document their activity, which otherwise remains hidden,
 - while keeping their anonymity.
- We also publish Editorials on editorial policy. In 2009 we published a special “***Ethics***” ***Editorial*** discussing
 - correct publication ethics,
 - breaches of publication ethics,
 - how the Editors of Solar Physics deal with unethical behaviour of authors or referees
 - what are the consequences of unethical behaviour.

Breaches of Ethical Conduct:

- i) Failing to appropriately acknowledge prior work.
- ii) Failing to obtain the appropriate permissions to include copyrighted material.
- iii) Submitting a manuscript without the contribution and/or consent of all of the co-authors.
- iv) Failing to communicate submissions of the manuscript to other journals.
- v) Reproducing substantial material from the authors' own papers (*i.e.* “self-plagiarism”).
- vi) Reproducing materials from papers published by others without giving proper credit for it, *i.e.* plagiarism.

We impose a 1-3 yr publication ban on authors committing the most serious offense: plagiarism.

Before making a decision on the length of such a ban in each case we ask

- report of an expert (referee)
- the offended authors
- and last but not least, the EdBd or its Chair

During the last five years we had to deal with 5 cases of plagiarism.

Comparing manuscripts to a large database of published papers prior to being sent to a referee will be an effective tool fighting plagiarism:

“Cross-Check” initiative (<http://www.crossref.org/crosscheck.html#>)

- **Introduction**
 - Introducing the Journal, our Subject, the Editorial Team & Board
 - Selection criteria for EiC & Self-introduction
- **Handling papers: From assignment to publication**
 - Peer-review process
 - Decision-making; difficult judgements, adjudication
 - Number of revisions; Acceptance and proof reading
 - Special/Topical Issues: Advantages and Caveats
- **Other editorial tasks and issues**
 - Editorials
 - Dealing with plagiarism
- **Measures of evaluation: Citation statistics & impact factor**

Many statistical measures of citation are monitored by Thompson Scientific formerly the Institute for Scientific Information ® (ISI ®)

<http://scientific.thomson.com/>

Web of Science® (Science Citation Index Expanded™, Social Sciences Citation Index®, Arts & Humanities Citation Index®, Index Chemicus®, and Current Chemical Reactions®), Current Contents Connect®, Essential Science IndicatorsSM, and Journal Citation Reports®

ISI indicators:

- cited half-life
- Impact factor
- immediacy index

Cites in 2007 to items published in
2006= 429
2005= 342
Sum = 771

Number of items published in
2006= 177
2005= 134
Sum = 311

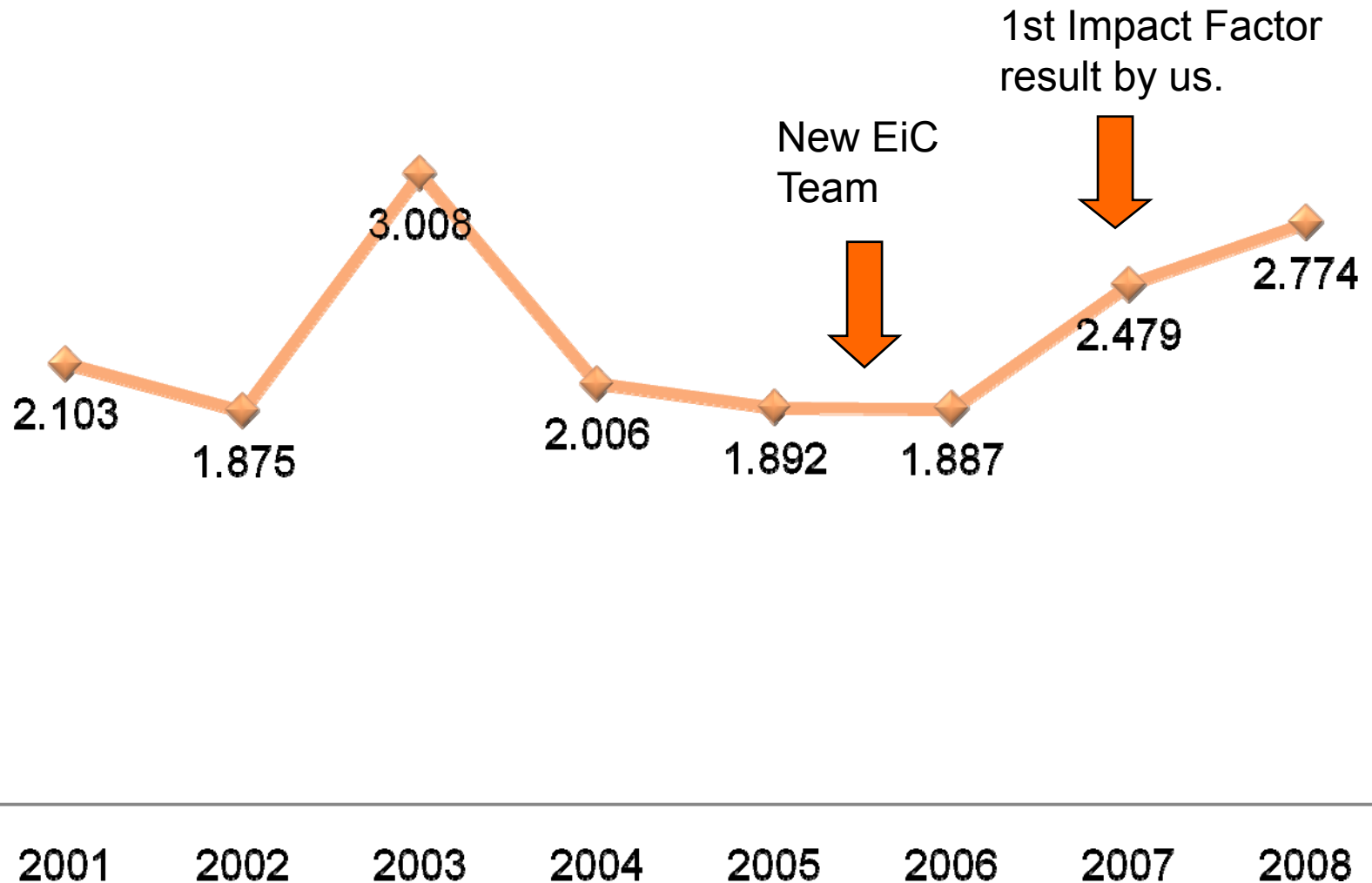
Calculation: $\frac{\text{Cites to recent items}}{\text{Number of recent items}} = \frac{771}{311} = 2.479$

Cites in 2008 to items published in
2007 = 495
2006 = 462
Sum = 957

Number of items published in
2007 = 168
2006 = 177
Sum = 345

Calculation: $\frac{\text{Cites to recent items}}{\text{Number of recent items}} = \frac{957}{345} = 2.774$

Impact Factor Trend of Solar Physics



- The impact factor can be thought of as the average number of times a paper in that journal is cited, for example:
- If 100 papers are published and each is cited by someone once, the impact factor of the journal would be = 1.
- One main aim is to publish only high quality papers as these are more likely to be cited. Review articles are more likely to receive a greater number of citations than ordinary articles.
- Extrapolating: If only one paper in two years is published, but it receives 3 cites, then the impact factor would be = 3!

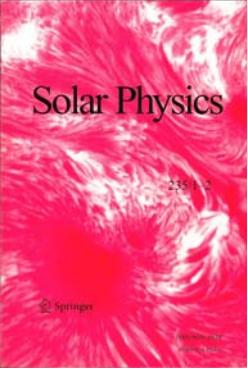
Cites in 2008 to items published in 2008 = 144
Number of items published in 2008 = 200

Calculation: $\frac{\text{Cites to current items}}{\text{Number of current items}} = \frac{144}{200} = \mathbf{0.720}$

- The cited half-life for the journal is the median age of its items cited in the current JCR year. Half of the citations to the journal are to items published within the cited half-life.
- For Solar Physics: > 10 yrs, so our papers have long-lasting impact.

- Being a Springer editor is about a **1/5-1/3 of a full-time job** even if we just take the basic tasks. This is too much to “squeeze in” a full-time academic job, therefore it has to be done over the weekends...
- It is a **relentless task**: the flow of papers doesn't stop when we go on holiday or attend a meeting - so coming back can be difficult...
- Occasionally, e.g. when handling Topical Issues, it becomes a full-time job for a while, so we **must take time off from research** and decrease other engagements.

Concluding remarks...



QuickTime?and a
YUV420 codec decompressor
are needed to see this picture.

*Comet Encke
hit by a solar storm*

*16-27 April 2007
observed with
NASA Stereo's
HI1 instrument*

Being a Springer editor sometimes feels like an uphill struggle against a mountain of tasks, or like a comet in the solar wind, which every now and then becomes stormy... However, it is a very rewarding work and a important service to the community.

Lidia van Driel-Gesztelyi
EiC Solar Physics