Early motivation

Interesting readings

Organized literature overview

Creative writing - feeling success
How to write a scientific paper?

1. Why do we (have to) publish?
2. Which types of publications are possible?
3. How to prepare the publication?
4. Which is the general structure of scientific papers?
5. Which are the characteristics of the structural components?
6. Which styles should be preferred?
7. How to submit a paper?
8. How does the peer review process work?
9. Which mistakes should be avoided?

Some basic guidelines for the creation of successful articles
How to write a scientific paper?

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Some basic guidelines for the creation of successful articles
Why do we (have to) publish?

- Participating in scientific **communication**
- Creating and demonstrating **new knowledge**
- Providing **new material** for scientific discussion
- Participate in **academic progress**
- **Documentation** of scientific processes and their results
The author’s perspective

Motivations to publish:

- **Dissemination** (54% 1st choice)
- **Career prospects** (20% 1st choice)
- Improved **funding** (13% 1st choice)
- **Ego** (9% 1st choice)
- **Patent** protection (4% 1st choice)
- Other (5% 1st choice)
The author’s perspective

Motivations to publish:

• Papers as indicators for success in scientific evaluation
• Papers as background information for funding in research institutions
• Papers as criteria for project support in funding agencies
• Cumulative PhD theses need 3-4-5 papers in peer-reviewed journals
• Papers as media for cooperation
The author’s perspective
The reader’s perspective

• Authoritative high quality articles
• Ease of access
• Rapid delivery
• Convenient format
• Linking of information
• Low or no cost
• Up-to-date information
• Comprehensible, easy to read
• Short and compact information
Author versus Reader: different priorities

• **Author behaviour**
  - Wants to publish more
  - Peer review essential
  - Other journal functions crucial
  - Wider dissemination
  - High level of distribution

• **Reader behaviour**
  - Wants integrated systems
  - Browsing is crucial
  - Quality information important
  - Wants to read less
Audience:

Papers are written to:

- **Editors**: generalists, interested in good stories with high scientific impact fitting their journal’s topics, scan papers quickly

- **Reviewers**: experts, but not necessarily in your absolute speciality; voluntary; short of time

- **Readers**: speciality depending on the journal, generally not experts in your specific field
Audience:

Always remember:
Those people deciding on the acceptance of your paper (editors, reviewers) are generally very busy and have to read a lot of papers in little time!

Therefore: Keep things well organized and easy to understand! (KISS rule: Keep it Short and Simple)

They will like your paper much better, if they can understand it quickly!
Never forget:

You are writing the paper for the reader!!!
How to write a scientific paper?

1. Why do we (have to) publish?
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Some basic guidelines for the creation of successful articles
Types of publications

- Conference abstracts
- Extended abstracts
- Reports
- Theses (e.g. PhD thesis)
- Proceedings
- Books (monographs, textbooks)
- Magazines
- Journals (peer-reviewed, non-reviewed)
<table>
<thead>
<tr>
<th>Types of journals</th>
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<tbody>
<tr>
<td>National vs. international</td>
<td></td>
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<tr>
<td>Peer-reviewed vs. non-reviewed</td>
<td></td>
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<tr>
<td>Disciplinary vs. interdisciplinary</td>
<td></td>
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<tr>
<td>Commercial vs. society journal</td>
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<tr>
<td>Commercial vs. open access journals</td>
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<tr>
<td>Research vs. review journals</td>
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<tr>
<td>Printed journals vs. online journals</td>
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</table>
Indicators of journal performance

• Citation index
  – Tracking citations between journals
• Journal impact factor
  – Indicates the utility of a paper / a journal

Impact factor = papers cited / papers published
IF = 1 = 100 / 100
IF = 2 = 200/100

- Shows the prominence of a journal
- Nature ~ 30
- Science ~ 25
- Landscape Ecology ~ 2,1
- Landscape and Urban Planning ~ 1,6
- Ecological Indicators ~ 1,9 → 3,1 → 3,0
Indicators of journal performance
Indicators of journal performance

Impact metrics

There are several reasons why an author will choose a particular journal to submit to and probably one of the most important reasons is the quality or impact of the journal. Journal Insights defines impact by several metrics, which are statistically sound and provide authors with valuable information to support their selection.

- Impact Factor
- 5 year Impact Factor
- Article Influence & Eigenfactor
- SNIP
- SJR
Indicators of journal performance

Problems:

- Impact factor does not tell anything about the quality
- Only certain journals are investigated (observation procedure)
- Book publications mostly do not count (although important)
- Impact factors differ enormously in different disciplines
- Accounting period: only two years
- Is used by universities as indicator of research efficiency
- May be a factor for employment decisions

→ Journals with high impact factors have high competition, limited space and high rejection rates
How to find your own „values“?

- **Scopus**: Search for your name in the [Author Search](#). In the list of authors that comes up in the search results, click on Details. The Details page provides both the times cited and the h-index, with links to graphs and tables.

- **Web of Science**: Register for [ResearcherID](#) to get your bibliometric data.

- **Google Scholar**: Use the Author name field in the [Advanced Search Form](#) to search for yourself. *Google Scholar* only provides citation counts for individual articles, not an author's entire career.
Indicators of author’s performance

• Biobliometrics
• Number of citations
• Citation index
• H-index

index H, defined as the number of papers with a citation number higher or equal to h, used as an index to characterize the scientific output of a researcher.
$h$-index

$h$ papers with at least $h$ citations each

$H$ index

(Hirsch 2005)
Extending bibliometrics

Academic output by field of research and publication type

Types of papers

• Research papers
• Review papers (state-of-the-art)
• Case study papers (short note)
• Discussion papers (e.g. ideas or viewpoints)
• Short note papers/short communication
• Book reviews
• Letters to the editor
• Editorial
How to write a scientific paper?

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Some basic guidelines for the creation of successful articles
Getting prepared

- Identification of the focal topic
- Definition of article type
- Appointment of the authors
- Develop your publication plan
- Define the objectives (do this very clearly)
- Ask three questions which the paper should answer
- Define the working title
# Overall publication plan

<table>
<thead>
<tr>
<th>Working title</th>
<th>Journal</th>
<th>Authors</th>
<th>Start</th>
<th>End</th>
<th>Status</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>1</td>
<td>me</td>
<td>06/09</td>
<td>12/09</td>
<td>started</td>
</tr>
<tr>
<td>A…</td>
<td>2</td>
<td>me and Fritz</td>
<td>10/09</td>
<td>04/10</td>
<td>Data analysis</td>
</tr>
<tr>
<td>B…</td>
<td>3</td>
<td>me and Kate and Ruth</td>
<td>12/09</td>
<td>06/10</td>
<td>ideas</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>me and Hans and Fritz</td>
<td>04/10</td>
<td>12/10</td>
<td>-</td>
</tr>
<tr>
<td>D…</td>
<td>5</td>
<td>me</td>
<td>08/10</td>
<td>12/10</td>
<td>-</td>
</tr>
</tbody>
</table>
## Paper publication plan

<table>
<thead>
<tr>
<th>Working title</th>
<th>Step</th>
<th>Authors</th>
<th>Start</th>
<th>End</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>A…</td>
<td>1</td>
<td>…</td>
<td>06/09</td>
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<td>started</td>
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<td>5</td>
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<td>…</td>
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</tbody>
</table>
Getting prepared

• **Define the objectives (do this very clearly)**
  – Objectives will *guide the reader*
  – Without objectives the *reader is lost*
  – Objectives are the *guidelines* of the paper’s structure
  – Objectives are carrying the *message* of the paper
  – **Derive the research questions**, better narrow than broad
Getting prepared

• Identification of the potential audience
  – Colleagues
  – Scientific community
  – Students
  – Practitioners and managers
  – Policy makers
  – Spatial extent: national or international
Getting prepared

- **Identification of a suitable journal**
  - Investigate **key literature** in your field
  - Ask **colleagues**
  - Consider the preferences of your **audience**
  - Take into account the **production time** of the journal
  - Consider the **reputation** of the journal (Impact factor)
  - Study the **guidelines for authors** and compare the **aims and scopes** with your contents
  - Take a look at the **papers in that journals** within the last two years
  - Investigate the **editorial board**
  - Compare your favourites with other journals
Getting prepared

• **Read the guide for authors of the potential journals**
  – Can be found at the journal‘s home page
  – Guidelines should be followed strictly
How to write a scientific paper?

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ANATOMY OF A SCIENTIFIC PAPER

1. WHAT IT'S ABOUT
   - The Report in a sentence.
   - No unnecessary words.

2. WHAT DID IT
   - Those who did the work being reported.

3. WHAT IT SAYS
   - The Report in a paragraph.
   - Use PAST TENSE.

4. WHY I DID IT
   - The problem, previous work, main findings and conclusions.
   - Use PRESENT TENSE.

5. WHAT I DID
   - Specifications, sources and amounts of materials.
   - 'Cookbook recipes' for methods.
   - Use PAST TENSE.

6. WHAT I FOUND
   - Experiments done and results obtained.
   - Use PAST TENSE.

7. DIAGRAMS, GRAPHS, TABLES
   - Make results easier to understand and compare.
   - Should be clear and simple.

8. WHAT IT MEANS
   - What the findings show, relationship to previous work, conclusions.
   - Use PAST TENSE for your findings.
   - Use PRESENT TENSE for established findings.

9. WHO ELSE HELPED
   - Those who gave technical, advisory, financial help.
   - Those who provided equipment, advice, etc.

10. WHAT ELSE HAS BEEN DONE
    - Relevant work published by others (and yourself).
    - Cited in the text.

INTRODUCTION

A research project cannot be considered to be completed until the findings have been published. Advice (1-5) is available on all aspects of the writing process. The structure of a research report is now well established (2). In writing this report, advice was found useful during both the development and writing process. Materials and Methods (3) were used to help organize the findings. The findings are presented as tables and figures (4). The rationale for these was based on previous work (5).

REFERENCES

Scientific writing follows a **rigid structure** – a format developed over hundreds of years.

Consequently, a paper can be read at several levels:

– Some people just will refer to the **title**
– Others may read only the **title and abstract**
– Others will read the paper for a **deeper understanding**
Structure of research papers

- Title
- Abstract
- Key words
- Introduction
- Materials and methods
- Results
- Discussion
- Conclusions
- Acknowledgements
- References
- Appendix
- Tables
- Figure Captions
- Figures
# Components of a Paper

<table>
<thead>
<tr>
<th>Section</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Clearly describes contents</td>
</tr>
<tr>
<td>Authors</td>
<td>Ensures recognition for the writer(s)</td>
</tr>
<tr>
<td>Abstract</td>
<td>Describes what was done</td>
</tr>
<tr>
<td>Key Words (some journals)</td>
<td>Ensures the article is correctly identified in abstracting and indexing services</td>
</tr>
<tr>
<td>Introduction</td>
<td>Explains the problem</td>
</tr>
<tr>
<td>Materials and Methods</td>
<td>Explains how the data were collected</td>
</tr>
<tr>
<td>Results</td>
<td>Describes what was discovered</td>
</tr>
<tr>
<td>Discussion / Conclusions</td>
<td>Discusses the implications of the findings</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>Ensures those who helped in the research are recognised</td>
</tr>
<tr>
<td>References</td>
<td>Ensures previously published work is recognised</td>
</tr>
<tr>
<td>Appendices (some journals)</td>
<td>Provides supplemental data for the expert reader</td>
</tr>
</tbody>
</table>
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Some basic guidelines for the creation of successful articles
Title

- Describes the paper’s content **clearly and precisely**
- Is the **advertisement** for the article
- Do not use **abbreviations and jargon**!
- Search engines/indexing databases depend on the **accuracy of the title** - since they use the keywords to identify relevant articles
Title

- Title should be.....
  - Short
  - Informative
  - Explaining the subject of the study
  - May contain paper type (e.g. review)
  - Should be understandable in isolation
  - Should be specific (not too general)
  - Should not include abbreviations
Authors Listing

• ONLY include those who have made an intellectual contribution to the research

• OR those who will publicly defend the data and conclusions, and who have approved the final version

• Order of the names of the authors can vary from discipline to discipline
  – In some fields, the corresponding author’s name appears first
Abstract

• **Briefly** summarize (often 150 words) - the problem, the method, the results, and the conclusions so that
  – the reader can decide whether or not to read the whole article
• Together, the title and the abstract should stand on their own
• Many authors write the abstract last so that it accurately reflects the content of the paper
• Abstract serves to choose respective reviewers
• A miniature version of the whole text; 200-500 words in one paragraph

Write the abstract in the end of the whole procedure
Key words

- **Search machines** work with key words
- Key words help **finding relevant articles** quickly
- Do not use more than **5-7 key words**!
- Do not use words which are already written in the title!
- Do not use key words which nobody would search for!
Research highlights

Highlights

- Long tree-ring C isotope series show increasing trends after onset of operations.
- Response-to-climate modelling suggests isotopic anomalies during operation period.
- Anomalies strongly correlate with the proxy for mining-operation emissions.
- Combined climate-airborne emissions models reproduce all measured δ^{13}C trends.
- Tree-δ^{13}C models offers an objective recognition of past changes in air quality.
Introduction

- Clearly state the:
  - Problem being investigated
  - Background that explains the problem
  - Reasons for conducting the research
- Summarize relevant (available) research to provide the context of your paper!
- State how your work differs from published work!
- Identify the questions you are answering!
- Explain what other findings, if any, you are challenging or extending!
Introduction

- **Introduction should include** information about:
  - The background
  - The motivation
  - The state-of-the-art
  - The respective gaps in knowledge
  - Definitions (if necessary)
  - **Objectives and questions**
  - **Structure of the paper**

Knowledge in the broader field

Your focus
Materials and Methods

• Provide the readers with enough details, so they can understand and replicate your research
• Explain how you studied the problem, identify the procedures you followed, and order these chronologically where possible
• Explain new methodology in detail; otherwise name the method and cite the previously published work
• Include the frequency of observations, what types of data were recorded, etc.
• Be precise in describing measurements and include errors of measurement or research design limits
Gerald had begun to think that his methodology was too detailed.
• Objectively present your findings, and explain your results!
• Show that your new results are contributing to the body of scientific knowledge!
• Follow a logical sequence based on the tables and figures presenting the findings to answer the question or hypothesis!
• Figures should have a brief description (a legend), providing the reader sufficient information to know how the data were produced!
Discussion

• Principles, relationships and generalizations that can be interpreted by the results
• Report about unexpected results or problems occurring due to the state-of-the-art
• Critical assessment of the study design and methods, limitations in analysis or validity
• Relationship with other results from the literature
• Theoretical implications of the results
Discussion/Conclusion

• Describe what your results mean in context of what was already known about the subject!
• Indicate how the results relate to expectations and to the literature previously cited!
• Explain how the research has moved the body of scientific knowledge forward!
• Do not extend your conclusions beyond what is directly supported by your results - avoid undue speculation!
• Outline the next steps for further study!
Conclusions

• Which conclusions can be drawn from your paper?
• No summary, no new facts
• Shortly describe the main message and the focal general outcome of your work
  → what can be learned from your paper?
• Refer to objectives and questions in the introduction
• Describe next steps
Acknowledgements

• Optional section
• Keep it short
• Acknowledge significant support (technical and financial support, data, information, reviewers,..)
• If you acknowledge persons, write what for
• Do not use titles
• Often: standard text necessary to acknowledge funding agencies
• **Good reference lists** support credibility, validity, communication
• *In press*: Accepted papers
• *In prep or in review*: Do not use those papers
• All references should have been read by you!
• Only list references which are used in the paper! Check this in the end!
• Avoid grey literature (no quality control)
Harvard Reference Style

Uses the author's name and date of publication in the body of the text **(Adams 1983a)**, and the bibliography is given alphabetically by author

**Adams, A.B. (1983a)** Article title: subtitle. Journal Title 46 (Suppl. 2), 617-619


Vancouver Reference Style

Uses a number series to indicate references; bibliographies list these in numerical order as they appear in the text

Jane suddenly realised that her reference list had too many self citations…
Appendix

- Additional information
  - Data
  - Tables
  - Model codes
  - Questionnaires
- Optional
- Often only available on-line
How to write a scientific paper?

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7. How to submit a paper?
8. How does the peer review process work?
9. Which mistakes should be avoided?

Some basic guidelines for the creation of successful articles
Style and Language

- Refer to the journal’s author guide for notes on style (see Publishing Skills Web-Bibliography for examples)
  - Some authors write their paper with a specific journal in mind
  - Others write the paper and then adapt it to fit the style of a journal they subsequently choose

- Objective is to report your findings and conclusions as clearly and concisely as possible

- Don’t try to formulate un-understandable (scientific?)
If English is not your first language, find a native English speaker (if possible) to review the content and language of the paper before submitting it.

Regardless of primary language, find a colleague/editor to review the content and language of the paper.

See: Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication  http://www.icmje.org/
Style and Language Rules after Tress & Tress

• **Write good English**
  – Spelling control
  – Write in English directly
  – Ask a native speaker for help
• **Follow the objective**
  – Reduce your text to the focus of the paper
• **Active form is often better than passiv**
  – “We showed” instead of “it was shown”
• **Avoid Abbreviations**
  – Otherwise the reader will give up soon
Style and Language Rules after Tress & Tress

- Avoid synonyms for the same object (no prosa)
- Read out loud
- Use short sentences
- Use short paragraphs
- Shorten, shorten, shorten
- Consequently use one time (past / present) or mix it as follows:
  - Abstract: past
  - Introduction: present
  - Methods: past
  - Results: past
  - Discussion: present
  - Conclusions: present
Avoiding boring and pompous writing:

Summary: Prefer the

Common word to the rare word,
the standard to the off-beat,
the short to the long,
the single to the multiple,
the specific to the general,
the definite to the vague,
the concrete to the abstract,
the Anglo-Saxon to the Latinate.
Figures, graphs, tables

• Present complex data in a comprehensive way
• Support the text message (never use a figure or table without referring to it in the text)
• Useful to shorten the text
• Help the reader to understand what has been done, how it has been done and what was the outcome
**Figures, graphs, tables**

- **Do not overload** figures and tables
- **Depict only what is really necessary** to better understand the text
- If you want to show **trends**, use graphs
- If you want to present **data**, use tables
- Be prepared to produce **black/white graphs** (colours have to be payed in printed versions)
- **Do not forget figure / table captions**
Tests and improvisations

- Increase the quality and readablility of the article:
  - Collegial proofreading
  - Ask experts and non-experts
  - The reader is always right!!!!
  - Take your time
Writing a scientific text is an iterative process: „The key to good writing is rewriting!“
1. Why do we (have to) publish?
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Some basic guidelines for the creation of successful articles
Article Submission

- Select your journal carefully
- Read the aims and scope
- Think about your target audience and the level of your work – do you have a realistic chance of being accepted?
- Follow the guidelines in the notes for authors and include everything they ask – it makes the editor’s job easier…
- Articles should not be submitted to more than one journal at a time
ECOLOGICAL INDICATORS
Integrating Sciences for Monitoring, Assessment and Management

AUTHOR INFORMATION PACK

TABLE OF CONTENTS

- Description p.1
- Audience p.1
- Impact Factor p.2
- Abstracting and Indexing p.2
- Editorial Board p.2
- Guide for Authors p.4

DESCRIPTION

The ultimate aim of Ecological Indicators is to integrate the monitoring and assessment of ecological and environmental indicators with management practices. The journal provides a forum for the discussion of the applied scientific development and review of traditional indicator approaches as well as for theoretical, modelling and quantitative applications such as index
Article Submission

• **Cover letter**
  – Full address of corresponding author
  – Addresses, e-mails and names of co-authors
  – Title
  – Nice text (Hello editor,......why this journal)

• **Author statement**
  – Work is original and has been carried out by the authors
  – All authors have contributed
  – All authors agree with the text and its submission
  – No part has been published elsewhere unless acknowledged in the text
  – Manuscript has not been submitted to another journal

• **Potential referees**
Details for Manuscript Number: ECOLIND-4125
"Structural equation modeling as a tool to develop conservation strategies using environmental indicators: The case of the forests of the Magdalena river basin in Mexico City"

Abstract:

Studies in Mexico using indicators to incorporate the knowledge on the conservation state of ecosystems have been developed mostly through a descriptive approach, consequently they are not well supported in ecological data, or they lack an analysis of socio-ecological integration, making difficult the implementation of the strategies derived from these conservation plans. Structural equations models (SEM) help with the understanding of direct and indirect interactions between variables and consequently they allow detecting root causes of changes. In this study, a method to
Ms Word but all manuscript components should be included to allow referees to evaluate your manuscript. References can be in any style, as long as they are complete and consistent. Figures need to be high enough quality for refereeing. If you prefer to do so, you may still provide all or some of the source files at the initial submission. See the Guide for Authors on the top menu for more details of the journal's requirements.

Will you submit using **Your Paper Your Way or Standard Submission**?

Please confirm that you have mentioned all organizations that funded your research in the Acknowledgements section of your submission, including grant numbers where appropriate.

I confirm that I have mentioned all organizations that funded my research in the Acknowledgements section of my submission, including grant numbers where appropriate.

**Manuscript Notes:**

- Display Manuscript Notes Flag

**Production Notes:**

- Instructions

**Final Decision Term:**

**Final Decision Date:**

**Final Disposition Term:** None

**Editors**

- Name: Felix Mueller
- Role: Editor in Chief
- Date Assigned: Jul 21, 2014
- Date Completed: 
- Elapsed Days: 0
- Recommendation:
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Some basic guidelines for the creation of successful articles
The peer-review process

- Paper assessment methodology
- Paper control before publication
- Guarantees high quality papers
- Check and judgement by independent experts
The persons involved

- Publisher: professional enterprise
  - Elsevier: 35% of scientific journals
  - Springer 10% of scientific journals
  - Publishing, marketing, database management, copyright protection, cooperation with libraries
  - Technical and production and adminstrative service
  - Wish to earn money
The persons involved

- **Editor**
  - Scientist in the field of the journal’s scope
  - Mostly has a normal scientific job and is editor on top of it
  - Responsible for the development of the journal
  - Decides about rejections/revisions/acceptance
  - Ensures fairness and high standard quality control
  - Carries out the preselection
  - Invites reviewers and coordinates the review procedure
  - Communicates with all other partners
The persons involved

• **Referee/reviewer**
  – External and independent expert
  – Appointed by the editor
  – Experienced paper writer
  – Selected due to the contents of the paper
  – Can be suggested by the author
  – Has an academic job and does reviewing on top, thus works without payment
  – Evaluates the scientific quality of an article
  – Encourages the author to improve the manuscript
The peer-review process

- Editor pre-selection
  - Formal criteria
  - Scope of the journal
  - New and original
  - Relevance for international audience
  - Quality

→ 40-50% of papers fail already here
An overview of the peer-review process
The peer-review process

• What a review should be
  – Constructive
  – Helpful
  – Respectful to the ideas and the authors
  – Critical but fair
  – Time consuming and longer than 5 sentences
  – Considering all evaluation criteria
What a review should not be
Title of manuscript:

Reference number:

Reviewer’s name (will not be provided to the author, unless the reviewer requests it):

Date:

---------------------------------------------------------------------------------------------------------------

Overall ranking of the article: ___ ___ (0=very poor 100= excellent)

General comment to the editor:

---------------------------------------------------------------------------------------------------------------

Evaluation:

( ) Acceptable in its present form
( ) Acceptable after minor revision
( ) Acceptable after moderate revision
( ) Acceptable after major revision
( ) Acceptable as a short communication (eventually after revision/reduction)
( ) Unacceptable
**PART II: REVIEW**

**Manuscript reference number:**

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<th>If no, comments:</th>
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<tr>
<td>1. Does the subject of the paper fall within the scope of the journal?</td>
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<td>Yes</td>
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<td>2. Is it a new and original contribution? (no item for review articles)</td>
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<td>Yes</td>
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<td>3. Are the interpretations and conclusions sound, justified by the data and consistent with the objectives?</td>
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*If the answers to any of the above three points are negative, please give clear arguments for the rejection of the papers. If the answers are positive, please continue with the following items.*
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<th>Question</th>
<th>Yes</th>
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<td>4. Does the title of this paper clearly reflect its content?</td>
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<td>5. Is the abstract sufficiently informative especially when read in isolation?</td>
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<td>6. Are the keywords informative and appropriate?</td>
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<td>7. Is the statement of objectives of the paper adequate and appropriate in view of the subject matter?</td>
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8. Are the methods exposed correctly and sufficiently informative to allow replications of the research?
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<th>Yes</th>
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<th>If no, comments:</th>
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9. Are the statistical methods used correctly and adequate?
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<th>Yes</th>
<th>No</th>
<th>If no, comments:</th>
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10. Are the results clearly presented?
    | Yes | No | If no, comments: |
    |-----|----|-----------------|

11. Is the article structured in agreement with the guidelines for authors? Is the organization of the article satisfactory?
<pre><code>| Yes | No | If no, comments: |
|-----|----|-----------------|
</code></pre>
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<td>12. Does the contents justify the length of the article?</td>
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<td>13. Are the illustrations and tables all necessary, complete, clearly presented, and are the captions adequate and informative?</td>
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<td>14. Are the references adequate and in agreement with the Guide for Authors?</td>
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<td>15. Is the quality of the English satisfactory and understandable for a multidisciplinary and multinational readership?</td>
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<td>If no, comments:</td>
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The peer review process I.

- **Paper submission**
- **Formal control** (editorial office)
- **Editor assignment**
- **Preselection** by the editor
  - Reject → mostly „out of the scope“
  - Revise → improvement necessary before referees can work on the text → Authors have to hand in an improved article
  - **Start of the review process**
The peer review process II.

- **Start review process**
- Select 2 reviewers and ask for review
- Invitation reminder(s)
- „Reviewer hunting“ procedure
- (Finally) Reviewer agrees to review
- Review reminder(s)
- Reviews complete
The peer review process III.

- **Reviews complete**
  - Accept  Revise  Reject
- Editor makes **decision**
- Editor writes **decision letter** to author with all review components
- **Author** receives review
  - Accept  Revise  Reject
The peer review process IV.

- Author improves the text (revisions)
- Author documents all changes in details (cover letter)
  - Address all comments in the reviews!
  - Implement all changes requested!
  - Discuss points where you do not agree with the review and give good reasons why you do not change!
- Author resubmitts the article incl. the response letter
The peer review process V.

- Editor receives revised version and cover letter
- Simple cases: Editor decides directly
- After one major revisions:
  - … second review procedure
  - … third review procedure
- Editor‘s final decision (no discussion)

Reject  Accept
The peer review process VI.

- Rejection – what now?
  - Out of the scope?
  - Wrong article type?
  - Not innovative?
  - Bad quality?
- Wait two days (or more)!
- Try to understand the arguments!
- Analyse the reasons for the rejection!
- Change the article accordingly!
- Resubmitt it as a new paper or send it to another journal!
The production process

- Technical departments of the publisher produce proofs
- Proof reading and proof correcting
- Publisher makes changes
- Online publication
- Printed publication
- ............. one year has passed
How to write a scientific paper?

1. Why do we (have to) publish?
2. Which types of publications are possible?
3. How to prepare the publication?
4. Which is the general structure of scientific papers?
5. Which are the characteristics of the structural components?
6. Which styles should be preferred?
7. How to submit a paper?
8. How does the peer review process work?
9. Which mistakes should be avoided?

Some basic guidelines for the creation of successful articles
Avoid common mistakes

• Select your journal carefully!
• Write the paper when the research has been finished, not before!
• Show that you know the state-of-the-art!
• Define your objectives clearly!
• Describe your methods precisely!
• Do not mix results, discussion and conclusions!
• Write a conclusion with clear reference to the introduction!
• Follow the reviewers‘ recommandations and document your consequences from reviews!
• Ask colleagues and native speakers for help!
What makes a good paper?

- A clear Story
- A clear structure
- A clear message
- Well designed and self-explaining figures
Never forget:

You are writing the paper for the reader!!!
Do we really need all that information?
Further reading

- http://abacus.bates.edu/~ganderso/biology/resources/writing/HTWtoc.html
- www.who.int/hinari/training/

Main sources of this presentation
Recommended Books:

**Writing For Science and Engineering**

**Writing Scientific Research Articles**

**Style – Lessons in Clarity and Grace**
Joseph M. Williams & Gregory BG. Colomb
Online-Guides for Writing Scientific Texts:

The Science of Scientific Writing
http://www.americanscientist.org/issues/pub/the-science-of-scientific-writing/1

Presentation: “Science in Plain English”
http://www.weizmann.ac.il/YoungPI/writing

Guidelines for writing Scientific Papers
www.bms.bc.ca/library/Guidelines%20for%20writing%20Scientific%20papers.pdf

Scientific Writing Booklet
www.biochem.arizona.edu/marc/Sci-Writing.pdf

Tips on Scientific Writing
www.nhn.ou.edu/~morrison/Teaching/WritingTips.pdf
Early motivation

Organized literature overview

Creative writing - feeling success

Interesting readings

Happy end
Thanks for your attention!