Open your mind. LUT.
Lappeenranta University of Technology
Steps for good publications

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Content

- Introduction
- Preparation of a manuscript
- Review process
Content

Introduction

Preparation of a manuscript

Review process
Scientific publications

• Research reports
• Conference papers
• Journal papers
• Theses
Introduction

Why in a journal?

• Peer review can be seen as a learning procedure
• Peer review provides a state of the art information of the field
• Visibility
• Allows to challenge yourself (submit your manuscript to Nature or Science)
Introduction

What to publish?

• Novelty
Results must represent a new, previously unknown, information (use of commercial software?)

• Significance
They must shed a light for the understanding of a phenomenon or process, for a theoretical, numerical or experimental method, for an application, etc (usually not an issue)

• Reliability
They must have been carefully checked and must permit verification by other scientists
Introduction

In which journal?

- Aims and scope
- Reputation
- Impact factor
- Publication forum
- Web of knowledge and Scopus databases
- Rejection quota
- Publication delay
- Page charges
Introduction

Important steps

• Select a journal
• Study “Instructions to authors”
• Prepare manuscript
• Submit to the journal (only to one journal)
• Wait for result of review
• Revise and prepare rebuttal letter if needed
• Get acceptance from the Editor
• Check proofs
• Sign copyright agreement
• Paper published in the journal
Content

Introduction

Preparation of a manuscript

Review process
General notes

• Organize material systematically (literature review, own methods and results)
• Outline the manuscript in IMRAD format
• Prepare figures, tables and equations with care
• Write (order MRDAI often convenient)
• Ask your supervisor to criticize -> revise
• In general, one journal paper requires one person-year
Preparation of a manuscript

The IMRAD format

- **Introduction**
- **Methods and materials**
- **Results**
  - And
- **Discussion**
Preparation of a manuscript

Example

Introduction I
Theoretical background M
Experimental set-up and procedure M
Results and discussion RD
Conclusions D
References
Also: I(MR)(MR)D, IM(RD)(RD), etc.
Introduction

Storyline

1. Introduction to field
2. Literature review (quality of references is very important)
3. What is not yet studied (motivation/problem definition of the paper)
4. Objective
Preparation of a manuscript

Methods

• “How was the problem studied?”

• Present significant material in logical order

• Describe mathematical and numerical models
  and procedures so that other scientists will be
  able to reproduce your results

• Describe experimental set-up and procedure,
  and materials used, so that other scientists will
  be able to reproduce your results
Preparation of a manuscript

General instructions

Language

- Use exact “engineering” language
- Avoid uncompromised language (ex. All machines ..)
- Avoid unspecific statements (ex. quite large …)
- Use effects (italic font, bold) with care
Selection of reviewers

Editor/associate editor make the decision based on

- Title/Content
- Reference list
- Keywords
- Available reviewers
Review

- The first impression matters

- Literature review is important (avoid to use multiple reference after a sentence, such as [1-23])

- Clarity of writing is essential (use a language consultant)

- Objectivity (avoid commercialism)

- Review statement is usually focusing on negative issues
Response to reviewers

- Write rebuttal with care
- Make sure that you address all comments
- Changes made should be clearly highlighted
- Avoid up-nose attitude
Content

- Introduction
- Preparation of a manuscript
- Review process