




Recipes for cooking a successful paper

Preparing a manuscript
 for a peer-reviewed international journal

Lecture 4: Submission and revision



Tarmo Soomere
 Estonian Academy of Sciences
 Laboratory of Wave Engineering
 Centre for Non-linear Studies
 Institute of Cybernetics at Tallinn University of Technology


 Cooking a paper – Lecture 4 18.11.2012
Tarmo Soomere




Going step by step



- Before you start writing
 - What is scientific publication? Who are its authors? Scholarly journals. Citing others. Impact factor. The story, message, carrier, target group.
- Writing: the simplest step of publication
 - Structuring the manuscript: IMRAD. Titles and subtitles. The role of and rules for Abstract, Introduction, Theory, Methods, Results, Discussion, Acknowledgements.
- Illustrating the message
 - Figures. Figure captions. Mandatory images. Design principles. Crowds or emptiness? Tables. Internal and external links & cites.
- Ready to print?
 - Final formatting. Keywords. Highlights. Secrets of successful submission. Nasty and helpful referees. Proofs.


 Cooking a paper – Lecture 4 18.11.2013
Tarmo Soomere




A short summary of Lectures 1-2-3

- The to-do list before writing
- Hints for writing
- Illustrating the message

 Cooking a paper – Lecture 4 18.11.2013
Tarmo Soomere







The importance of the message

- A scientific publication = making public something important and new
- This means: the authors understand what they do; and
 - are able to express it properly
- A paper = proof that the story is true

Formulating THE MESSAGE



- Make sure that the material has (some) impact
- Formulate clearly WHY you write this paper
 - Maximally 3-4 lines
 - Oversimplify if necessary – but make the point very clear
 - **Hint: Think of one sentence to describe this paper after 10 years**
- Estimate where the impact could be
 - (is there at least one potential reader in the world?)


 Cooking a paper – Lecture 4 18.11.2013
Tarmo Soomere




The to-do list before writing



- Decide about the target journal
- Download several papers from the target journal
 - written by prominent scientists - native speakers
 - this helps keeping the journal conventions
- Make a compendium of the basic recommendations of the journal
 - Distribute it to all co-authors
- Convert the **message** to a **story**
- Create nomenclature and glossary

 Cooking a paper – Lecture 4 18.11.2013
Tarmo Soomere




Building a sentence

- A good sentence is **topical**: begins with the important item
 - The relationship $F=ma$ was discovered by Newton
 - Suitable in a text on the history of physics
 - Newton discovered the relationship $F=ma$
 - Suitable in a biography of Sir Isaac Newton
- As short as possible
 - Avoid ambiguities
 - "The monkey was operated on by the surgeon when he was six weeks old"
 - "The monkey, when he was six weeks old, was operated by the surgeon"
- Being clear has the priority over perfect style
 - "... as of September 1, 257 people were dead ..." **How many?**

 Cooking a paper – Lecture 4 18.11.2013
Tarmo Soomere


Bricks of writing: paragraphs

- A paragraph = step in your story
- Describes a clearly identified part of the content
 - Remember "roadmap" for writing
- Normally 5-10 lines, 3-7 sentences
- **Organise each paragraph!**
- Start with a topic sentence
 - that explains the main point or idea
- Subsequent sentences provide the detail
 - This formula: sometimes considered less polished
 - But direct and intelligible; thus, perfectly acceptable
 - Start with this style, adjust when you gather experience

CEINS Tallinn University of Technology Tarmo Soomere WAVE ENGINEERING 7

Some Important Points by Terry Healy

- The purpose of a research paper is to communicate new original knowledge
 - New concepts
 - New data
 - New interpretations
- Clarity of expression follows clarity of thought.
 - First sketch out the ideas you want to express.
 - Then write it as simply as possible.
 - Use "topic" sentences and phrases.

CEINS Tallinn University of Technology Tarmo Soomere WAVE ENGINEERING 8

The meaning of references

- A study relies in part upon the work of others
- Authors are required to identify their sources of information == cite references
 - Not only to credit where it is due
 - But also to provide the reader the access to these
- Authors' ethics: External material **MUST** be identified wherever used
 - But to insert full documentation is distracting and cumbersome
- A solution: references

CEINS Tallinn University of Technology Tarmo Soomere WAVE ENGINEERING 9

Various systems

- **Number system**
 - Text citation: "As highlighted in [1], ..."
 - Reference list: [1] Johnson, D. 2001. ...
 - Various appearances: (1), [1], superscript, etc.
 - Preferable in letter-type journals; saves space
 - *Estonian Journal of Engineering, Physics of Fluids...*
- **Author-date**
 - Text citation: "... found in (Beckers, 2003)"
 - So that the reader can find it unambiguously
 - Reference list: alphabetical Beckers, J.-M. 2003. ...
 - Gives much more information about the source
 - Sources can be easily added or deleted
 - *Estonian Journal of Earth Sciences, Journal of Marine Systems..*

CEINS Tallinn University of Technology Tarmo Soomere WAVE ENGINEERING 10

Referencing

- **Do not 'cite' unless you have 'sighted' a reference**
 - Check carefully the publication data
- Demonstrate knowledge of the authoritative international literature
- Avoid long lists of 10-20 authors in the text
 - => laziness
 - => you haven't really read them all
 - Integrate references into the text

CEINS Tallinn University of Technology Tarmo Soomere WAVE ENGINEERING 11

Bibliography: List of References

- **Follow journal format exactly!**
- Study the format carefully – each journal is different
 - Alenius, P., K. Myrberg, and A. Nekrasov A., "Physical oceanography of the Gulf of Finland: a review", *Boreal Environment Research*, 3:97-125, 1998.
 - Alenius P., Myrberg K., Nekrasov A., 1998, *Physical oceanography of the Gulf of Finland: a review*, *Boreal Env. Res.*, 3, 97-125.
 - Alenius P, Myrberg K, Nekrasov A, Physical oceanography of the Gulf of Finland: a review. *Boreal Env Res* 3, 97, 1998.
- EndNote may help – but frequently does not

CEINS Tallinn University of Technology Tarmo Soomere WAVE ENGINEERING 12

TALLINNA TEHNIKAÜLIKOOL
TALLINN UNIVERSITY OF TECHNOLOGY

Lesson 4

Final formatting
Submission
Referees' reports
Proofs

43

Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere

TALLINNA TEHNIKAÜLIKOOL
TALLINN UNIVERSITY OF TECHNOLOGY

Procedure

1. Decide on the message
2. Decide on a journal
 - Download instructions
3. Develop the story
4. Write Material/Methods
 - Start the reference list
5. Summarise results
 - Create figures
 - Create tables
6. Write Introduction and Discussion
 - Correct typos
7. Finalise the references
8. Assemble/order the tables and figures (in numerical order)
9. Select a tentative title
10. Write the abstract
11. Revise the entire draft
12. Sleep on it
13. Revise the manuscript
 1. Repeat (12).-(13)
14. Get approval of all authors
15. Re-read the MS
 - Improve sentence structure
 - Improve word choice
16. Ask colleagues to read MS
17. Have the text polished by a native speaker
18. Submit the manuscript

Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere

TALLINNA TEHNIKAÜLIKOOL
TALLINN UNIVERSITY OF TECHNOLOGY

Summary of preparing the entire manuscript I

- The motto of scientific writing: brevity & clarity
 - To provide maximum information
 - with minimum words
 - In well-organised manner
- It is now time to complete the full manuscript

43

Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere

TALLINNA TEHNIKAÜLIKOOL
TALLINN UNIVERSITY OF TECHNOLOGY

Summary of preparing II: Title

- Choose a title that will attract the reader's interest
- Use the fewest possible words
 - But stay adequate
- Be specific
- Avoid abbreviations
- Be "topical": put important terms at the beginning

43

Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere

TALLINNA TEHNIKAÜLIKOOL
TALLINN UNIVERSITY OF TECHNOLOGY

Summary of preparing III: Authors and affiliations

- Include **all** those and **only** those who have significantly contributed
- List order: depends on the role and contribution
- List affiliations and addresses of all authors
 - Look once more into instructions of the journal
 - It is very boring for the Editor to ask for additional information
- List the corresponding author and his/her full coordinates

43

Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere


TALLINNA TEHNIKAÜLIKOOL
TALLINN UNIVERSITY OF TECHNOLOGY


Summary of preparing IV: Abstract

- Usually <one double-spaced page
- 150-250 words
- Avoid citing references
 - Cite only if the referee or Editor recommends so
- Objective and scope
 - Informative for research papers
 - Indicative for reviews, conference reports etc.
- Methodology: brief
- Summary of results & conclusions (1-2 sentences)



43


Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere


 Summary of preparing V:
Key words





- Used to properly place your research
- Reflect fields of research, not results
 - coastal processes, wave modelling, erosion, accumulation, longshore transport, Baltic Sea, Gulf of Riga.
- Priority: words that are not part of the title


 Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere 


 Summary of preparing VI:
Introduction





- Contains information that should be read first
 - To understand and properly position the text
 - Provide the educated reader with specific facts
- Typically includes
 - Nature and scope of the problem
 - Important literature
 - Methods: briefly on the very basic level
 - Recent findings and theories on the problem
 - Maybe: principal results (on the very basic level)


 Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere 


 Summary of preparing VII:
Material and Methods





- Describe and justify your approach
- Provide sufficient detail for a competent reader to repeat the study
- Do NOT include results (except in a methodology paper)
- The reviewers will use this section to judge the validity of your approach


 Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere 


 Summary of preparing VIII:
Results





- The meat of the paper
 - Presenting the findings in text, illustrations, tables
 - Need not to be lengthy
 - Do NOT describe methodology (again)
- Report significant results only
- Avoid redundancy
 - Do NOT duplicate images/text
 - Do NOT include the same data into images and tables
 - Do NOT repeat the legend/title in the text
- Enumerate and cite/mention all figures and tables
- Details/text in images must be readable after reduction by the printer


 Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere 


 Summary of preparing IX: Discussion





- Usually the most challenging section to write
 - It is NOT a recapitulation of results
 - The value: your interpretation of the findings
- Do NOT introduce new results
- Present the principles, relationships, generalizations of findings from the Results section
- Point out: any exceptions, any lack of (otherwise expected) correlation
- Define unsettled points
 - Avoid focusing on trivial details
 - Show how your results agree/disagree with published work
- Discuss implications and possible applications
- State your conclusions; summarize your evidence

 Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere 

 Summary of preparing X: Back matter



- Follows the text
- List resources that were not part of the research but nonetheless contributed:
 - Research contributions, sources of funding, references
- Acknowledgement
 - Credit those who have made research or financial contributions
 - Mention individuals and institutions/entities who have supported
- References
 - Cite only significant published references
 - Follow strictly journal's instructions for documentation
- Appendices (if necessary)

 Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere 

Assemble the manuscript: classical rules

- Title page
- Abstract, key words
- Body text
 - Introduction, M&M, Results, Discussion, Acknowledgements
- References
- Tables
- Figure captions
- Figures
 - (captions may re-appear)
- Typically each section begins on a new page
- Number pages consecutively
- Use line numbers to help the referees and editor
- **Use speller!!**
- Proofread
 - *The substance was cool*
 - *The substance was cool*
 - *To assess vs. To asses*

CEINS Tallinna Tehnikaülikool TARTU SOOMERE WAVE ENGINEERING
Cooking a paper – Lecture 4 18.11.2013

Submission

- Usually electronic
 - Make clear that you have all the components
 - In required format
 - Typical: Word, pdf, LaTeX, images: eps, tiff, jpg
 - Images imported into Word document only accepted at review phase
 - Word2007 frequently not accepted
 - Excel or Word drawings frequently discouraged
 - Compile a list of potential referees
 - Those you think may understand & be interested in your results
 - Not close friends
 - Normally among those you cite
- Classical style: Cover letter
- Modern style: Highlights

CEINS Tallinna Tehnikaülikool TARTU SOOMERE WAVE ENGINEERING
Cooking a paper – Lecture 4 18.11.2013

Cover letter

- Start with a standard phrase
 - Dear Dr Smith:

Please find attached a manuscript entitled: "Analysis of Zircon in Paleo-Tidal Deposits of the Changjiang Delta" by J. Zhang and X. Su, which we would like to submit for publication in the *Journal of Irreproducible Results*.
- Tell the Editor why (you think) this paper is important
 - Required for many top-level journals
 - Express shortly why your results deserve publication or why they are attractive to other scientists
 - What is new/unexpected/key development
 - Just 1 point!

CEINS Tallinna Tehnikaülikool TARTU SOOMERE WAVE ENGINEERING
Cooking a paper – Lecture 4 18.11.2013

Cover letter

- Tell the Editor why (you think) this paper is important
 - A highly interesting feature is that the switching time from winter-type to summer-type circulation (that occurred a few weeks earlier in the 1960s-1990s than in the 1950s) has moved back to later time since the mid-1990s. This may lead to substantial changes of the trends (or even to reverse of their sign) for many local meteorological and climatological variables. Together with the recently established considerable increase of the persistence of circulation types the shifts may be responsible for several local climatic extremes. We believe that our paper will launch a series of studies of the reverse shift and its potential consequences
- Suggest potential reviewers
 - If it is acceptable to you, we would like to suggest the following as referees with expertise and experience in the field:
 - Note: Include full address, email address and telephone number of the potential referees.
 - Do not contact the colleagues that you nominate.
- Confirmation that the manuscript is original and not submitted to any other journal or publisher

CEINS Tallinna Tehnikaülikool TARTU SOOMERE WAVE ENGINEERING
Cooking a paper – Lecture 4 18.11.2013

Highlights

- 3-5 major points expressed very shortly
 - Max. 85 characters each
- Present the most important results/conclusions in a compressed, bulleted-point manner
- Should not contain Material or Methods information; just what has achieved
- No debatable issues; no speculations; just proved/established facts

CEINS Tallinna Tehnikaülikool TARTU SOOMERE WAVE ENGINEERING
Cooking a paper – Lecture 4 18.11.2013

Highlights: a poor example

- 1) We used wave model WAM to study fetch-limited wave growth from irregular shoreline.
 - So what, this has been done by 100s of scientists
- 2) We studied several combinations of shoreline description, resolution and wind forcing.
 - Definitely not a highlight
- 3) Model results were compared against measurements made in the Bothnian Sea in 1976.
 - So what, a match or mismatch could be of some interest
- 4) None of the used combinations were able to predict the observed wave growth.
 - At least something about the result
- 5) Close to the shoreline the effect of resolution on the wave growth was fairly large.
 - Actually a well-know feature since the 1980s

CEINS Tallinna Tehnikaülikool TARTU SOOMERE WAVE ENGINEERING
Cooking a paper – Lecture 4 18.11.2013

Highlights: a better example

- WW3 results show swells propagating from the Atlantic Ocean into north Indian Ocean
 - Interesting: propagation "behind a corner"
- These swells propagated only in the Bay of Bengal and not in the Arabian Sea
 - Also interesting and worth of mentioning
- Swells of $H_s=15\text{m}$ generated by a cyclone in 2007 reduced to 6m in the Reunion Islands
 - Acceptable but clearly less interesting
- When winds are weak during pre-monsoon, swells from south Indian Ocean dominate
 - Acceptable

Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere

Upload: also nontrivial

- For review: usually manuscript alone is OK
- Check carefully what you need for submission
 - Typically a user account
- In electronic systems:
 - check whether the resulting file (usually pdf) is correct
 - Do not forget to push "Submit" button or (Finalize)
- Download and send the resulting pdf file to all co-authors
- Cross your fingers and wait

Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere

Now the review process starts

- The biggest problem with most journals is that the review process is slow and inefficient.
 - This is because the reviewers are not rewarded for their work, or evaluated on their performance.
- The Editor selects 2-3 reviewers
 - They check carefully
 - the manuscript
 - The rules of the journal
 - Usually also some cited / previous work
 - Outcome: a referee's report
- Based on these reports and his/her own impression, the Editor makes a decision

Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere

The questions asked from the reviewer:

I. Overall evaluation:

Paper

- of general importance
- important in the field of _____
- very specialised
- _____

Information contained

- new
- extension of existing information
- repetition of known results
- descriptive only
- not correct

2. Problem statement

- clear
- needs extension
- not clear
- inadequate

4. Interpretation of results

- adequate
- suffers from important omission
- inadequate
- suffers from loose generalising
- not understandable

Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere

More questions asked from the reviewer:

II. Technical side:

5. Title

- adequately descriptive
- corresponds to the text
- should be changed

Abstract

- clear and adequate
- needs linguistic revision
- needs substantial revision

Language

- grammatically good
- needs essential / slight revision
- reject

Presentation and style

- adequate
- too brief / long
- contains irrelevant material
- arrangement unsuitable
- not readable

Illustrations, tables

- adequate
- fig./ table ___ need alteration
- figure quality acceptable
- fig./ table ___ may be omitted

References

- adequate
- inadequate
- incomplete

Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere

Final questions asked from the reviewer:

III. Recommendation

Paper is


- excellent
- good
- acceptable
- without obvious significance
- weak
- too speculative
- too preliminary
- outside this journal's scope


12. This manuscript

- deserves ordinal / urgent publication
- is acceptable after revision (re-review required / not required)
- is not acceptable
- needs additional refereeing

Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere

Check Points on ms Quality: the points that the reviewers will check
(after Hengi and Gould, 2006)






- You have carefully and systematically **studied the work of colleagues** and referred to it
- You have **critically evaluated** your methods/results versus the state-of-the-art findings
- You have tested the performance of your technique using **multiple case studies / experiments**
- You do not actually know what has been published by others on this topic
- You are sure that your technique is optimal and that there is no better alternative
- You do not actually know if you will get the same results under various conditions

CENS Tallinn University of Technology Tarmo Soomere WAVE ENGINEERING

Check Points on ms Quality: the points that the reviewers will check





- You **make significant claims**, but these are backed up by strong arguments
- You have considered what **implications of this work** are and how these ideas/discoveries can be used to **solve real-life problems**
- You have **adjusted your style and jargon** to the target audience
- You do not want to make significant claims or you are making them without sufficient proof
- You do not actually know how your technique can be applied to solve real-life problems and what the implications of your findings are
- You have not previously tried to communicate your ideas/results to the targeted research group

CENS Tallinn University of Technology Tarmo Soomere WAVE ENGINEERING

After the Peer Review

- ms is returned to first listed author for:
 - Accept as is (**very infrequent**)
 - Minor revisions
 - Moderate to major revisions: a few potentially important omissions (**the most frequent**)
 - Major revisions and re-write, or
 - Rejected!
- Normally editors require authors to follow reviewers' recommendations
- Author may argue to editor against misunderstanding or bias by reviewer
- Remember: Ultimately it is YOUR paper

CENS Tallinn University of Technology Tarmo Soomere WAVE ENGINEERING

The worst happens: Rejected!

- Version A: the Editor does not believe that you can "save" the manuscript [for this journal]
 - We therefore feel that the paper would find a more suitable outlet in another journal.
 - Please be assured that this editorial decision does not represent a criticism of the quality of your work, nor are we questioning its value to others working in this area. We hope that you will rapidly receive a more favourable response elsewhere.
- Do NOT resubmit this (even re-worked) manuscript to this journal again

CENS Tallinn University of Technology Tarmo Soomere WAVE ENGINEERING

The worst happens: Rejected!



- Version B: the Editor thinks that the paper needs much work but can be "saved" in some other form
- The Editorial Board of Renewable Energy receives many excellent papers for publication, but since we have a limited number of pages available in each issue, it is not possible to publish all the papers submitted.
- I regret to inform you that following review your paper has not been recommended for publication in Renewable Energy in its present form. However, you may resubmit the paper for re-review when you have addressed all the major issues raised by the reviewer detailed below.
- You are welcome to resubmit the paper after revision
- In many cases references to the earlier version is recommended

CENS Tallinn University of Technology Tarmo Soomere WAVE ENGINEERING



After the Peer Review



- ms is returned to first listed author for:
 - Accept as is (**very infrequent**)
 - Minor revisions
 - Moderate to major revisions: a few potentially important omissions (**the most frequent**)
 - Major revisions and re-write, or
 - Rejected!
- Normally editors require authors to follow reviewers' recommendations
- Author may argue to editor against misunderstanding or bias by reviewer
- Remember: Ultimately it is YOUR paper

CENS Tallinn University of Technology Tarmo Soomere WAVE ENGINEERING



 **Standard layout of a review** 



- A remark on the scope, key developments, whether or not it is important, the overall feeling of the referee
 - No need to answer in detail
- Major comments and critics (missed points, potentially important shortages, misinterpretations)
 - To be answered point-by-point, normally require larger changes in the manuscript (few paragraphs)
- Minor comments (typos, small missed points, missing or redundant items)
 - Normally small modifications (<1-2 lines); to be answered/rebutted only you strongly disagree

 Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere 



 **An example of general remarks** 



- The authors describe in their paper [...] a rather novel method to quantify the surface divergence. This is indicated by using discrete particles and a particle-tracking model. From the change in area covered by a set of particles in comparison to the circumference a measure is derived to quantify the compressibility. This method is applied to surface current fields in the Gulf of Finland (GOF). The analysis is done for the year 1991

 Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere 



 **Standard layout of a review** 



- A remark on the scope, key developments, whether or not it is important, the overall feeling of the referee
 - No need to answer in detail
- Major comments and critics (missed points, potentially important shortages, misinterpretations)
 - To be answered point-by-point, normally require larger changes in the manuscript (few paragraphs)
- Minor comments (typos, small missed points, missing or redundant items)
 - Normally small modifications (<1-2 lines); to be answered/rebutted only you strongly disagree

 Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere 



 **Major comments: example** 



- [...] the authors miss some points. Moreover, the methods section should be carefully revised. The authors should additionally show how their method compares to the classical computation of the surface divergence or the vertical velocity field. This gives an idea on the advantages or disadvantages of the proposed method and how well the different methods correlate.
- Necessary revisions may involve 2-3 pages, and inclusion of substantial amount of material

 Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere 



 **Standard layout of a review** 

- A remark on the scope, key developments, whether or not it is important, the overall feeling of the referee
 - No need to answer in detail
- Major comments and critics (missed points, potentially important shortages, misinterpretations)
 - To be answered point-by-point, normally require larger changes in the manuscript (few paragraphs)
- Minor comments (typos, small missed points, missing or redundant items)
 - Normally small modifications (<1-2 lines); to be answered/rebutted only you strongly disagree

 Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere 

 **Minor remarks: also very helpful** 

- L 307 What does "really close to zero" mean and what is your reference to judge it?
- L 316 I think you mean Fig. 4.
- L 321 I think the river Kymi is located in the NE part of GOF.

 Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere 

TALLINNA TEHNIKAÜLIKOOL
TALLINN UNIVERSITY OF TECHNOLOGY

Most manuscripts need some modification

- Consider ALL comments as helpful
 - Even if they are nasty or not fair:
 - You have probably failed to explain some point(s)
- Long referee's reports contain numerous advice
- Answer every comment in detail
 - Thank referees for their efforts (they do it for free)
 - Usually agree and rewrite/reformulate
 - Disagree only if you are 110% convinced that your point is correct
 - Create a detailed answer & list of corrections
 - Mark corrections in the manuscript e.g. with a color
 - Use direct and personal attacks for your own benefit

CENS Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere WAVE ENGINEERING

TALLINNA TEHNIKAÜLIKOOL
TALLINN UNIVERSITY OF TECHNOLOGY

Thank the referees! They have (usually) deserved it.

- We highly appreciate the overall positive attitude of both referees to our manuscript and gratefully acknowledge their detailed and uncompromising but still friendly and very constructive comments and suggestions.
- The remarks greatly helped us to put the entire presentation into a more proper context and to identify and remove several inconsistencies, and to express more clearly the background of a few debatable items in the text.

CENS Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere WAVE ENGINEERING

TALLINNA TEHNIKAÜLIKOOL
TALLINN UNIVERSITY OF TECHNOLOGY

Most manuscripts need some modification

- Consider ALL comments as helpful
 - Even if they are nasty or not fair:
 - You have probably failed to explain some point(s)
- Long referee's reports contain numerous advice
- Answer every comment in detail
 - Thank referees for their efforts (they do it for free)
 - Usually agree and rewrite/reformulate
 - Disagree only if you are 110% convinced that your point is correct
 - Create a detailed answer & list of corrections
 - Mark corrections in the manuscript e.g. with a color
 - Use direct and personal attacks for your own benefit

CENS Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere WAVE ENGINEERING

TALLINNA TEHNIKAÜLIKOOL
TALLINN UNIVERSITY OF TECHNOLOGY

If you do not agree: explain in great detail why; and still modify the manuscript!

- Here we are of different opinion. As we explain in the text, the largest contribution to this feature stems from ignoring of spreading caused by subgrid-scale processes. In the absence of spreading, trajectories of initially closely located particles tend to stay together. Therefore, there is a tendency that a whole bunch of trajectories that start from a specific grid cell either all touch nearshore, or none of them enters the nearshore. As we release the particles only into every fourth cell (just to keep the computational cost reasonable), this feature becomes evident in very contrast manner in maps for single simulations. This is the reason why the developers of this technique recommend using a large pool of simulations starting from different time instants (Soomere et al. 2010; Andrejev et al. 2011). We have reformulated the paragraph in order to make this more clear. We have also added relevant explanations into the discussion section.

CENS Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere WAVE ENGINEERING

TALLINNA TEHNIKAÜLIKOOL
TALLINN UNIVERSITY OF TECHNOLOGY

Making more use of referees' comments

- Recognise where are your systematic violations of grammar and/or style
 - It is possible to learn good English
 - Check from textbooks, dictionaries
 - Create a glossary of items where you failed
- Typical Estonian/German errors
 - Change ~~of~~, decrease ~~of~~, increase ~~of~~, etc. ❌
 - Should be: change **in**, decrease **in**, increase **in**
 - Except for very few special cases

CENS Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere WAVE ENGINEERING

TALLINNA TEHNIKAÜLIKOOL
TALLINN UNIVERSITY OF TECHNOLOGY

Most manuscripts need some modification

- Consider ALL comments as helpful
 - Even if they are nasty or not fair:
 - You have probably failed to explain some point(s)
- Long referee's reports contain numerous advice
- Answer every comment in detail
 - Thank referees for their efforts (they do it for free)
 - Usually agree and rewrite/reformulate
 - Disagree only if you are 110% convinced that your point is correct
 - Create a detailed answer & list of corrections
 - Mark corrections in the manuscript e.g. with a color
 - Use direct and personal attacks for your own benefit

CENS Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere WAVE ENGINEERING

Mark corrections/changes in the text

- Observations, measurements and modelling of wave fields in the Baltic Sea basin go back for many decades (*Schmager et al., 2008; Weisse and von Storch, 2010*).

Personal attacks can be used for your benefit: showing (very politely) that the referee has been biased:

- Why don't you call it simply "surface divergence", this is what you are computing. JMS is an oceanographic journal and not Physical Review Letters.

(surface divergence was a very particular case of what was computed; and PRL is a dream publishing place for many oceanographers – but a few are accepted there)

CEINS Tallinna Tehnikakool / Tallinn University of Technology
Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere WAVE ENGINEERING

After the Peer Review (cont.)

- Manuscript revised and returned for processing
- May take 2 years to appear as a fully published article
- So its time to start on the next ms!

CEINS Tallinna Tehnikakool / Tallinn University of Technology
Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere WAVE ENGINEERING

Almost there: the proofs

4. Identification of the environmentally safe fairway in the South-Western Baltic Sea and Kattegat

01 6 Xi Lu · Tarmo Soomere · Emil V. Stanev · Jens Murawski

8 Received: 27 September 2011 / Accepted: 27 February 2012
9 © Springer-Verlag 2012

10 Abstract Application of the preventive techniques for the optimization of fairways in the south-western Baltic Sea and the Kattegat in terms of protection of the coastal regions against current-driven surface transport of adverse impacts released from vessels is considered. The techniques rely on the quantification of the offshore domains (the points of release of adverse impacts) in terms of their ability to serve as a source of remote, current-driven danger to the shoreline. An approximate solution to this adverse problem of current-driven transport is obtained using statistical analysis of a large pool of Lagrangian trajectories of water particles calculated based on velocity fields from the Denmark's Meteorological Institute (DMI) HIRSH canal circulation model forced by the DMI-HIRHAM wind fields for 1990–1994. The optimum fairways are identified from the spatial distributions of the probability of hitting the coast and for the time (particle age) it takes for the pollution to reach the coast. In general, the northern side of the Darss-Zingst area and the western domains of the Kattegat are safer to travel. The largest variations in the patterns of safe areas and the symptoms of pollution heating occur owing to the interplay of water inflow and outflow. The gain from the use of the optimum fairways is in the range of 10–30% in terms of the decrease in the probability of coastal hit within 10 days after pollution release or an increase by about 1–2 days of the time it takes for the hit to occur.

Keywords Particle tracking · Baltic Sea fairways · Inflow and outflow events

1 Introduction

The increasing density of traffic and the associated increase in the pressure to the marine ecosystem are calling for new

CEINS Tallinna Tehnikakool / Tallinn University of Technology
Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere WAVE ENGINEERING

Proofs: the last option to correct mistakes

- ALL AUTHORS should read with great care
 - estuarine circulation forced by tidal flow for which it is well known that in such cases the surface flow often exhibits a tendency to converge (Nunes and Simpson 1985) therefore Lagrangian particles coverage, as well.
- Check every single symbol (even spaces etc.)
- Check once more references (page numbers etc.)
- Create a list of corrections, showing **exactly** what and how should be changed
 - Line 582: please replace "about 5 to 27 days" by "about 6 to 14–16 days" to match the data in Fig. 9
 - line 671: please insert space after Basin
 - line 732, Question 5: please replace 2011 by 2010
 - line 800: please correct Raynard to Raynaud
 - line 825: please correct Dellhez to Delhez

CEINS Tallinna Tehnikakool / Tallinn University of Technology
Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere WAVE ENGINEERING

The paper is accepted and available online, or has been printed

- Send reprints to colleagues
- NB! Write a polite cover letter
 - Formulate the main point
 - Don't force colleagues to read your paper
- Ask advice from leaders in the field
 - Not about the particular paper
 - But whether or not the topic is important
- Establish:
 - your own web site
 - Early drafts of the ms can be posted there
 - make summary brochures,
 - mount poster displays.
- All assist to promote your status as an expert researcher.

CEINS Tallinna Tehnikakool / Tallinn University of Technology
Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere WAVE ENGINEERING

That's all folks!

JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 117, C00002, doi:10.1029/2011JC007636, 2012

Observation of rogue wave holes in a water wave tank

A. Chabchoub,¹ N. P. Hoffmann,¹ and N. Akhmediev²

Received 27 September 2011; revised 16 November 2011; accepted 22 November 2011; published 1 February 2012.

[1] Rogue waves in the ocean can take two forms. One form is an elevated wall of water that appears and disappears locally. Another form is a deep hole between the two crests on the surface of water. The latter one can be considered as an inverted profile of the former. For holes, the depth from crest to trough can reach more than twice the significant wave height. That allows us to consider them as rogue events. The existence of rogue holes follow from theoretical analysis but has never been proven experimentally. Here, we present the results confirming the existence of rogue wave holes on the water surface observed in a water wave tank.

Citation: Chabchoub, A., N. P. Hoffmann, and N. Akhmediev (2012), Observation of rogue wave holes in a water wave tank, *J. Geophys. Res.*, 117, C00002, doi:10.1029/2011JC007636.

1. Introduction

Rogue waves in the ocean are presently under intense studies (Kharif et al., 2009; Garret and Gemrick, 2009; Müller et al., 2005; Ruban et al., 2010). Inverse formations, or rogue wave holes have been mentioned by Osborne et al. (1983; Shirai and Geogtavi, 2010), which is a doubly localized solution of the nonlinear Schrödinger equation can explain both, the elevated rogue waves as well as deep holes on the water surface. In this work, we present first observations of rogue holes on the water surface and give a theoretical explanation in terms of a rational solution of the

CEINS Tallinna Tehnikakool / Tallinn University of Technology
Cooking a paper – Lecture 4 18.11.2013 Tarmo Soomere WAVE ENGINEERING