Part I: Before you begin and as you are writing

• A few things to think about before you start
• Some best practices in constructing a manuscript

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From the beginning

• You’re finishing up your research and thrilled about your results
• You have a novel idea that apparently hasn’t been discussed before
• You have an enormous pile of maps / seismic / analyses / video footage / remote imagery and synthesis

IT’S TIME TO WRITE THAT PAPER!
From the beginning

• Audience!
  • choose the most appropriate journal – think about your primary idea
  • check the website for each journal
• Think about who your co-authors should be (if any)
• Refine the topic
• WRITE!
Audience: use the journal
Audience: use the journal

- Model how you construct the manuscript on a published paper (structure, formatting, diagrams, tables, etc.)
Audience

• keep in mind that if you are writing for a “general” journal, you must assume relatively little inferred knowledge (your reader knows much less about your topic than you do...)
Who are your co-authors?

• Everyone who had a substantial contribution in framing the problem and its resolution.
  • all authors must contribute to writing the paper, whether literally or through ideas
  • many journals require confirmation

• When in doubt, consult your dissertation / thesis / post-doc supervisor
What is important?

• Most ideas have value
• Frame your idea in a way that your officemate / partner / colleague can see its value: why would someone read about this?
Write!

• Hourglass structure
• IMRAD (Introduction, Methods, Results, and Discussion)
  • what parts of the paper will deliver the greatest impact of your work?
Hourglass structure

Introduction

findings (Methods, data, Results, comparisons...)

Discussion

BIG concepts & context

the ‘meat’

relevance, synthesis, implications, predictions — more broad context

% impact
Write!

• Think very seriously about writing an outline first...
• Make a list of likely figures and insert them in the outline
Write the Introduction

• Follow the scientific method
  • what is known
  • what is not known / poorly understood / contradictory to the previous ideas: What is the problem?
Write the Introduction

• Follow the scientific method
  • why you used the method / field site / images you did – how it/they are THE way to solve the problem
  • a bit about your conclusions
  • SET THE STAGE for the paper

• MANY people write the Introduction last
The other parts

• Methods
  • sufficiently descriptive that they can be replicated

• Data (results):
  • all your results whether they support your ideas or not
  • no bias, no interpretation at this point
The other parts

• Discussion
  ➢ your ideas and interpretations!
  • no new data in this section
  • how your data and ideas mesh with other studies

• The title (!!) (write this last)
  • why would someone choose to read your paper?
  • be descriptive and specific
Other tips for preparing the manuscript

• Write to your figures
  • “a picture paints a thousand words...” (what words are you replacing)?
  • how does a figure support the text?
  • a figure caption should concisely highlight the take-away points

• Write, put the manuscript down for three days, and rewrite
Other tips for preparing the manuscript

• Put your co-authors to work! At minimum, make them read a draft.

• When using contributions from co-authors, don’t hesitate to rewrite in your own voice
Last but not least

• NEVER start your paper (Abstract or Introduction) with “We” or “I”. The paper is about rocks or techniques or many other things, but not about you.

➢ Don’t write to be understood, write so that you cannot be misunderstood