

# Writing Papers

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# Acknowledgements

- Presentation by Prof. David Taylor
  - some slides reproduced
- CAPSL workshop

# Why Write?

- Why do you write papers?
  - 3 reasons

# Why Read?

- Why do you read papers?
  - 3 reasons

# Where to publish?

- Conference
  - Prestige
  - Networking
  - Readership
- Journal
  - Impact factors
  - Reviewers
  - Readership
  - Turnaround time

# Good Papers

- Think of papers in your own area that you have found accessible
- Clear
  - Problem, context, idea to address problem, some experiments, analysis of results, discussion of success/failure and future improvements
- Concise
- Good referencing
- Suitable level of detail

# You write the paper!

- It's your work!
- You need to develop your own style
- There are guidelines that can help you get started

# Getting Started

- Use LaTeX
- Track your references on an ongoing basis
  - e.g. use EndNote
- Use the templates provided by your conference or journal
- Basics:
  - Call for Papers
  - Areas
  - Page Limit, deadline
  - Electronic Files up-loadable for demos?

# Elements of Paper

- Abstract (Summary)
- Keywords
- Introduction
- Methods (Experimental Details)
- Results
- Discussion
- Conclusions
- Acknowledgements

# Actually writing the paper

- Clear picture of the story before you write anything
  - What's my contribution?
  - Where does it fit in?
  - What level of background is appropriate?
- Divide into sections
- Write high-level outline of paper first

# Sample for Intro

- Introduction
  - Why AN model approach useful
  - Why using this AN model – superior modelling of hearing loss, synchrony, phase locking, ref JASA paper here
  - AN output and neurograms – explain two time resolutions and conversion into time-freq representation as neurogram
  - Idea of looking at neurogram as picture. Use SSIM from image processing to quantify degradation. Ref. Wang paper. Ref my Interspeech paper.
  - Degradation at phonetic level. Link to design of hearing aids. How results will show correspondence with intelligibility is already strong
  - Brief outline of paper

# The Objectives

- The end of the Intro is a good place to state:
  - Objectives, or
  - Hypothesis, or
  - Research Question

# Background

- Level of detail will vary
  - space often limited in conferences
- Mini literature review
  - NOT just a list of what was done
  - Critical analysis of what is out there
- Style point
  - In [1], a motion estimation algorithm...
  - The motion estimation algorithm presented by Pitie et al. in [1]

# Experimental Set-up

- Enough detail to reproduce the experiment
- Think of yourself trying to implement someone's method
- Examples
  - explicit about test and train data subset in a database
  - blocksize for analysis window

# Results

- State main results from your experiments
- A picture paints a thousand words
  - or does it?
  - Don't presume it is obvious
  - "it can be seen from the graph..."
- Write down (for yourself) what it is your graph/picture shows and how that supports the result you want to demonstrate.
  - then translate!
- Label axes
- Have meaningful caption
- If it doesn't help – take it out

# Discussion

- Most often done badly
- Most feared by young researchers
- Say what's good about your work
- Say what's bad (limitations)
- Compare to other published work
- Speculate
- Criticise other work

# Writing Style

- Do you say...
  - “We did this...” or
  - “This was done...” or
  - “The present authors did this...”
- More important that it is readable

# What's wrong with this abstract?

*"In this paper, we will describe some experiments that were conducted to measure the creep strain rate in a stainless steel, and we will discuss the significance of the results."*

From presentation by David Taylor

This one is better, but could still be improved – how?

*“We conducted a series of experiments to measure the creep strain rate in the stainless steel alloy SUS678F. We showed that the creep strain rate is proportional to the applied stress.”*

*“Creep strain rate is an important measure of a material’s high-temperature performance. Creep has been measured in various materials but not in the stainless steel alloy SUS678F. We conducted a series of experiments which showed that the creep strain rate is proportional to the applied stress in this alloy. This strongly suggests that the mechanism of creep in this material is grain boundary diffusion.”*

# Some thoughts

- Read more. Read more. Read more.
  - By end of your UG, your written English may be poor
  - learn by osmosis
  - papers, books, newspapers
- Grammar & spelling
  - long sentences with no punctuation!
  - What's an apostrophe?
  - Harte et al.
- Read your paper out loud (to yourself!)
- If multiple students submitting to conference
  - review each other's papers
- Don't sit on the fence
- Don't say your results are "interesting"!!
- Don't say anything you can't stand over

# Upcoming deadlines

- ICPR
  - Turkey, August 23-26
  - January 15, 2010.
- EUSIPCO
  - Aalborg on August 23-27
  - Deadline February 5,
- ECCV
  - Crete, 5 - 11 September
  - Abstracts March 10th
- ICIP
  - Hong Kong on September 26-29
  - Deadline January 25, 2010
- BMVC
  - Wales, Aug 30- Sep 2
  - Register paper Apr 23
- Interspeech
  - Japan September 26-30,
  - Deadline April 30
- EMBC
  - Buenos Aires, August 31 - September 4
  - Deadline April 1, 2010
- MMSP
  - France, October 4-6
  - Deadline April 15