Writing Papers

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The Introduction

• most important part of paper
• make understandable to broad audience
• explain the problem and its background
  • why interesting?
  • why should reader care?
• explain main results
  • why significant?
  • what are the implications?
  • include paragraph beginning: “The contributions of this paper are…”
• explain how results fit together — tell a story
Related Work

- be sure to include somewhere
  - usually right after introduction or toward end of paper
Technical Matter

• explain algorithms, theorems, etc. twice:
  • informally using intuition
  • formally using mathematical precision
The Writing Process

- often easiest to begin with results sections
  - then introduction and other sections usually fall into place
- writing is an iterative process
  - start with rough draft
  - revise, revise, revise
- re-read it yourself and have others read it
- check for: readability, logical organization, mechanics, mathematical correctness, etc.
- spelling, grammar, etc. matter!
  - may (unconsciously) bias reader unfavorably
Page Length Issues

- strategies:
  - put everything in and then cut later
  - OR: carefully choose what to include on first pass

- remember to budget time to cut material before deadline

- if over limit
  - consult latex guru for legal tricks to cut length (but avoid cheating!)
  - look for details (e.g., proofs) that can be cut or shortened
  - look for repetitious prose that says the same thing over and over again in more than one way lots and lots of times

- if under limit
  - be sure not omitting relevant details
The Audience

- aim for an appropriate audience
  - who do you want to reach?
  - where has previous work appeared?
- know your audience and write paper accordingly
- decide on conference/journal well before deadline and plan research appropriately