

# 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