PH403: Introduction Section

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Acknowledgements

http://online.physics.uiuc.edu/courses/phys499/
The introduction section

- Comes first, but always refined after the results become clearer.
- Prepares the reader for the rest of the paper.
- NOT methods, results, discussion or anything else!
Getting started

• It’s a “hook”. What motivates the research and how can you describe it so the reader wants to study it?
• What do we know at this point? Cite the previous research in the area
  - you have to demonstrate you are aware of this work
  - you help the reader learn
  - references say a little about what was done in that work (no blanket citations)
• Goals? State how the work you did contributes to the topic. Start with, "In this experiment" or "In this study" and then explain from there.
Getting going

• Give general background so reader can understand what you are addressing & why.

• Acknowledge previous work that is relevant. Reference so reader can go into the literature and be able to understand the rest of the thesis. Don’t overdo it – cite only works that are relevant for the paper.

• Describe the scope of the work - what will and will not be included.
Is the introduction also the “theory” that underlies the work?

• An introduction might include some of the underlying theory of an experiment or computation or the basis for new theory. If you plan an extensive presentation of the theoretical underpinnings, it might be better in a chapter of its own.

• An introduction should NOT launch into a description of theoretical underpinnings without first describing the motivation for the work and the current status of the field.
Guidelines

• Figures help immensely.
• Back most statements of fact with a reference.
• Define specialized terminology. Also, a good rule of thumb: If you didn't understand a certain term or concept when you started, you need to explain it in your introduction!
• Never set out to prove, verify, or demonstrate the truth about something. Rather, set out to test, document, or describe.
• Be brief. Only information that is relevant to the experiment should be presented in the introduction. Any description and explanation that is necessary for understanding the purpose of the experiment should also be included.
• Write an introduction for the study that you actually did, not the one you thought you were going to be doing when you started.
Thoughts

• Don’t worry if you don’t use things you have written – they have taught you much about physics and about writing and about discipline

• Don’t worry if the first draft looks awful. That’s what review is for.

• Worry if you can’t get it down on paper. Find a strategy that will make you write something.
On the lighter side

• [http://jcdverha.home.xs4all.nl/scijokes/8_2.html](http://jcdverha.home.xs4all.nl/scijokes/8_2.html)
On the lighter side