How to Read a Physics Paper—
The Four I’s

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The first *i*: *importance*

Does the paper contain information (methods, results, conclusions) that has implications for your research? (Is the paper worth reading?)

Read the title and the abstract

Look at the author list and their affiliations

Read the conclusions

Look at the figures and read the captions

Look at the references
Second i: iteration

Take the paper apart, section by section, and identify the key ideas

Highlight anything you don’t understand so that you can come back to it later

Cross-check the narrative with the figures and tables

Go back and re-read your highlighted sections; refer to the references or supplementary info

Repeat until you thoroughly understand the parts of interest to you
The third *i*: interpretation

Put the paper aside and write down the key ideas *in your own words*

Check what you’ve written against the paper; have you correctly represented the ideas and emphasis of the original paper?

Are there parts that you still don’t understand? *(go back to iteration)*

Do you agree with what the authors have said? Have they provided sufficient detail and supporting evidence?
The final *integration*

Evaluate how the information presented in the paper fits with what you already know

- Does it contradict something that you believe?
- Does it raise new questions that you should investigate?
- Does it describe a method that you could use?
- Is it something that you should refer to in the future? (If so, how are you going to keep track of it?)
One more *i*: *investigation*

Devise a system to keep track of what you read

Many software solutions are available


Several are supported by the UI Library

EndNote, Mendeley, RefWorks*, Zotero

Coming up: “Choosing a Citation Manager”

Sept 17, 10:00 a.m. to 10:50 a.m.
Main Library (Armory & 6th Street)
Room 314

Savvy Researcher Workshops
http://illinois.edu/calendar/list/4068
To recap:

*Importance*—first determine if the paper is worth reading

*Iteration*—go back over sections of the paper until you understand it; consult other sources if necessary

*Interpretation*—summarize the main points in your own words

*Integration*—synthesize the ideas with what you already know and believe

Investigate a citation management system to keep track of what you read

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