

# Evernote : Keeping track of your thoughts



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# Conducting Research

Look things up



Do an experiment



bkama  
@cosmojellyfish

Ask Questions



Talk to your peers



Talk to your advisor



Brittany Kamai, PhD



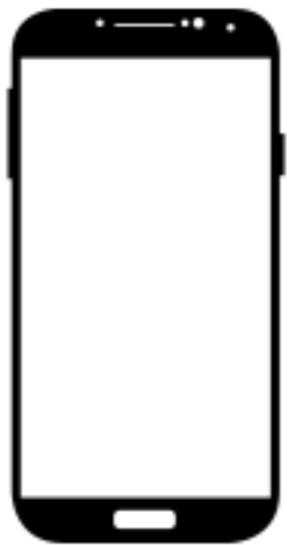
# What is Evernote?

It is a cross-platform digital notebook system



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It is a **cross-platform** digital notebook system



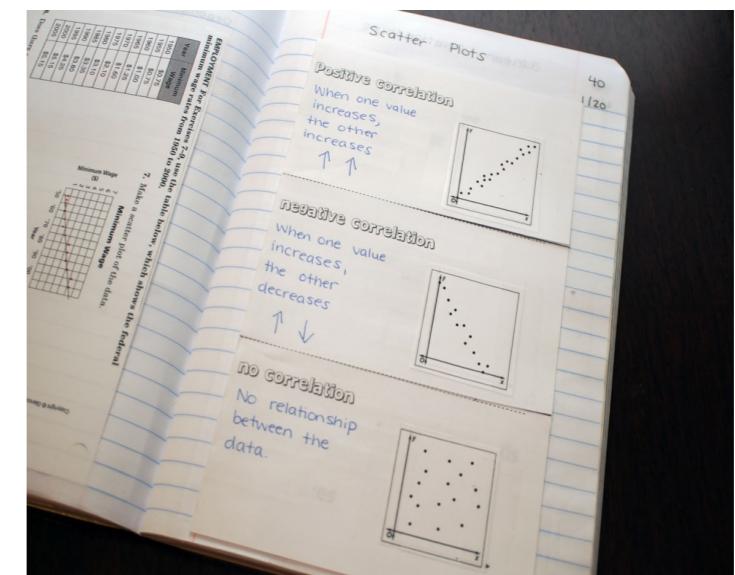


# What is Evernote?

It is a cross-platform **digital notebook** system



Digital

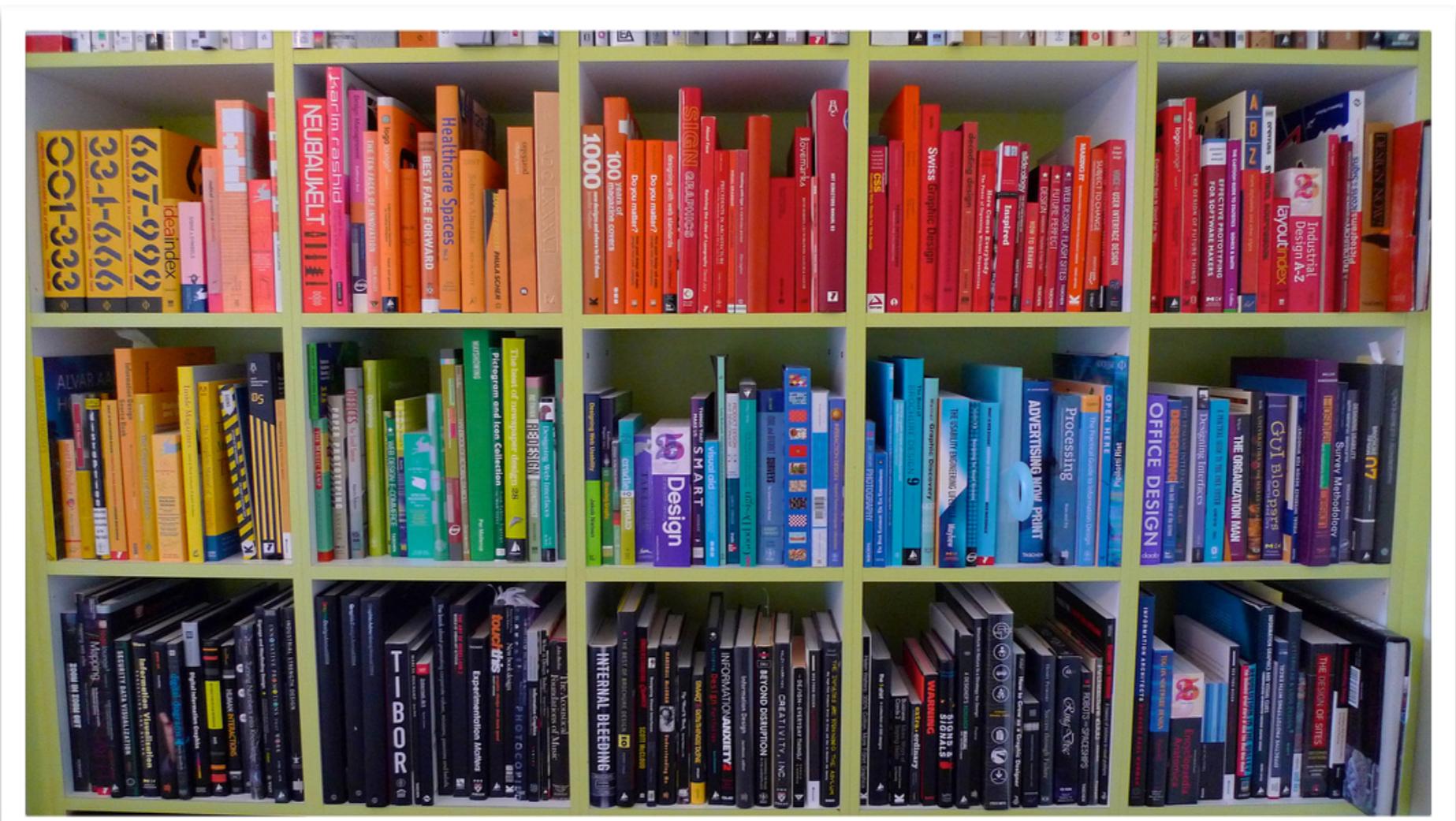


Analog



# What is Evernote?

It is a cross-platform **digital notebook system**

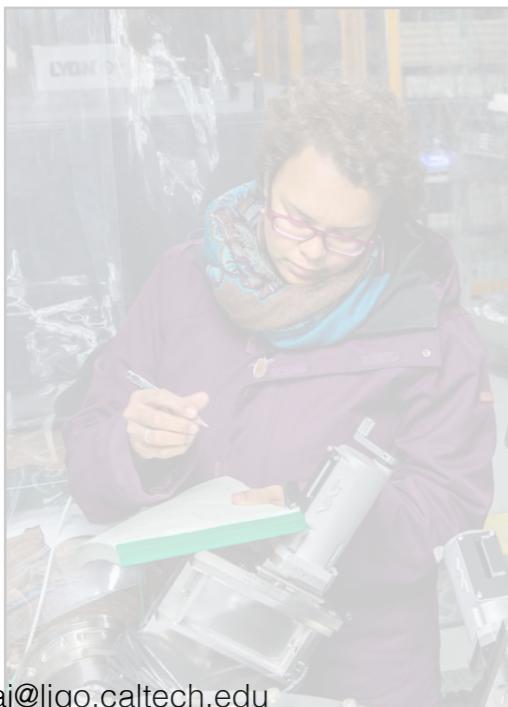


# Conducting Research

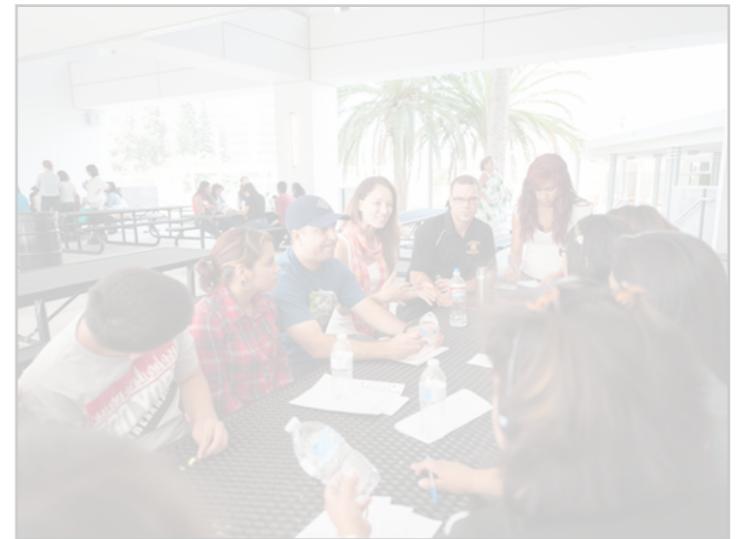
Look things up



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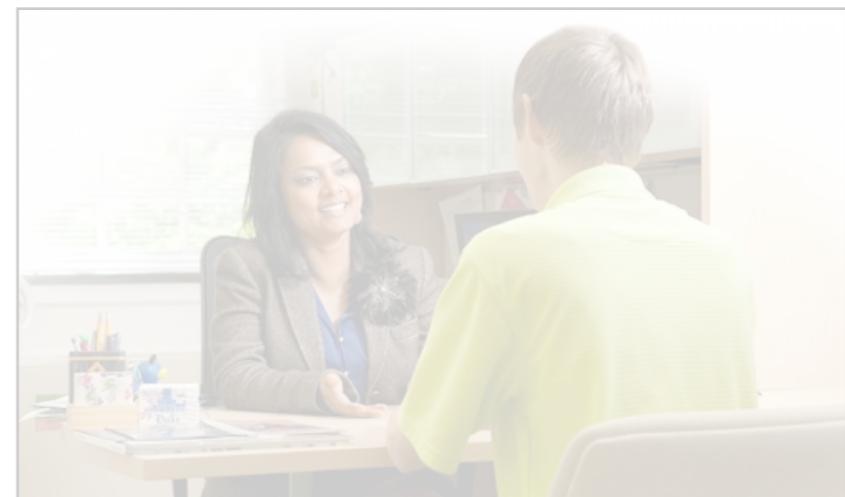
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# Looking things up

Research papers

WIKIPEDIA

Great write-ups

**Google it and open up a million tabs**

POPULAR  
SCIENCE ARTICLES

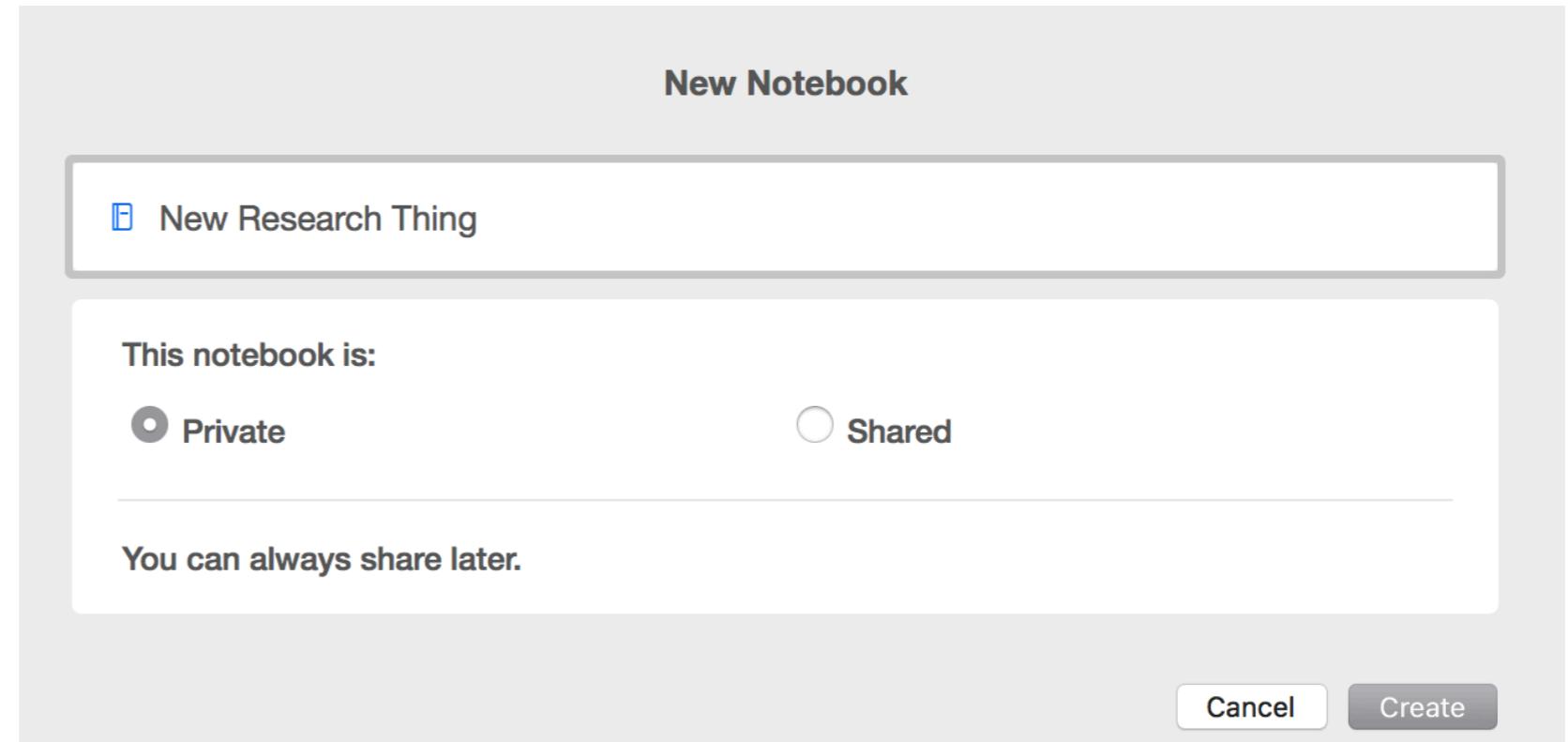
New hammock

Summaries of new tools/techniques

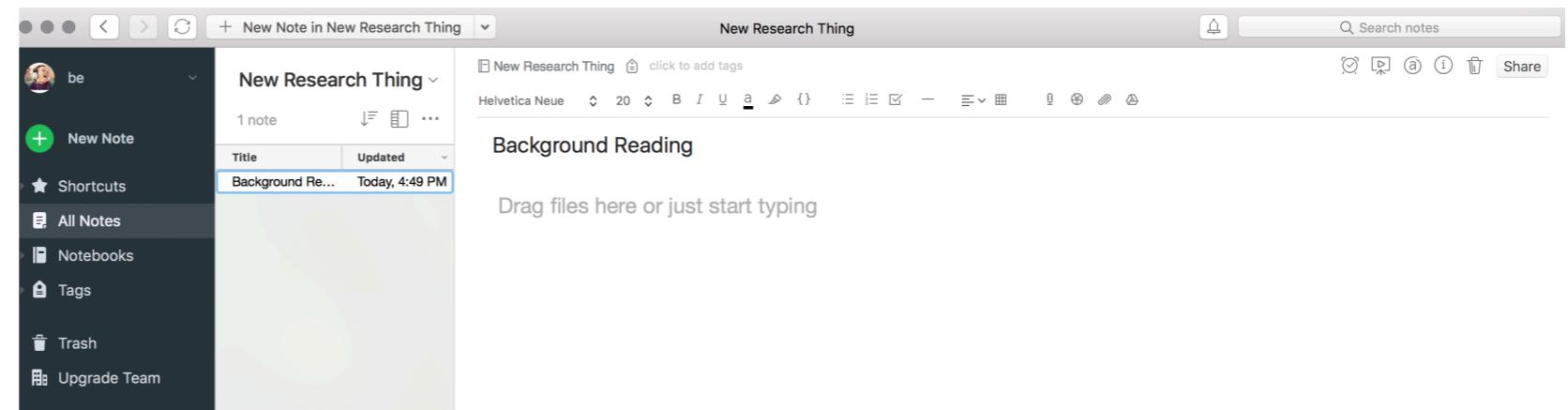
Remembered you needed to buy noodles

# Looking things up

Start a new notebook



Start a new note



# Looking things up

## 5 MINUTE PRACTICE

- 1) start a new notebook - name it after your question
- 2) make a new note - “background reading”
- 3) add in links from what you had investigated
- 4) make a couple bullet points to help you remember what the link was all about

# Looking things up

## Example note

Dark Energy click to add tags

Created: Feb 17, 2017 Updated: Feb 17, 2017

Resources

<http://cosmology.berkeley.edu/~miguel/GravityEtCetera/GravityPages/EWTheory.html>

- Overview of torsion pendulum experiments

<http://www.perimeterinstitute.ca/videos/self-interacting-scalar-fields-and-eot-wash-experiment>

- A presentation from Amol at Perimeter Institute

<https://kicp-workshops.uchicago.edu/Relativity2012/depot/talk-upadhye-amol.pdf>

- Slides from Amol about 5th forces

<https://www.npl.washington.edu/eotwash/>

- University of Washington's group on laboratory tests of gravity

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# Talking to your peers

Interesting research topics

NEW RESOURCES THEY FOUND

Cool websites that help find new research opportunities

Suggested ideas to help with your project



# Talking to your peers

## 5 MINUTE PRACTICE

1 minute - share what you started looking up

1 minute - partner can react with thoughts and ideas

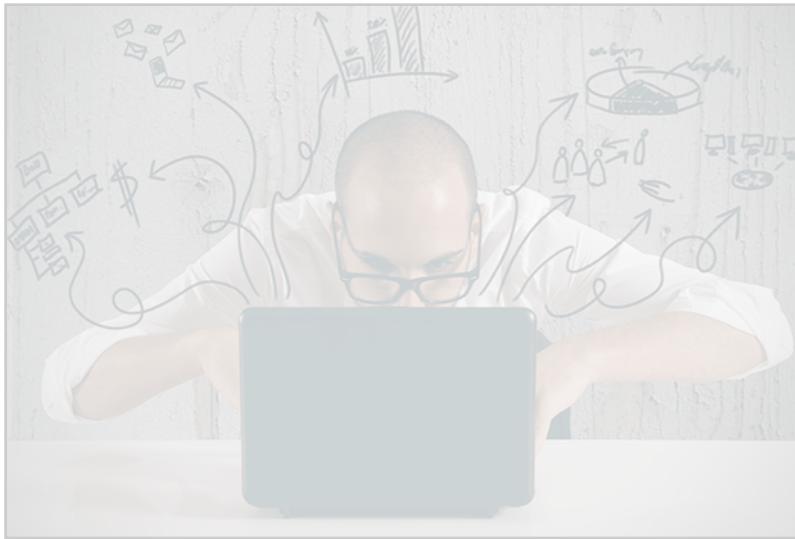
1 minute - next person share what they looked up

1 minute - react with thoughts and ideas

1 minute - start a new note,  
add in notes from what your partner mentioned and new ideas you  
had at the same time

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Look things up

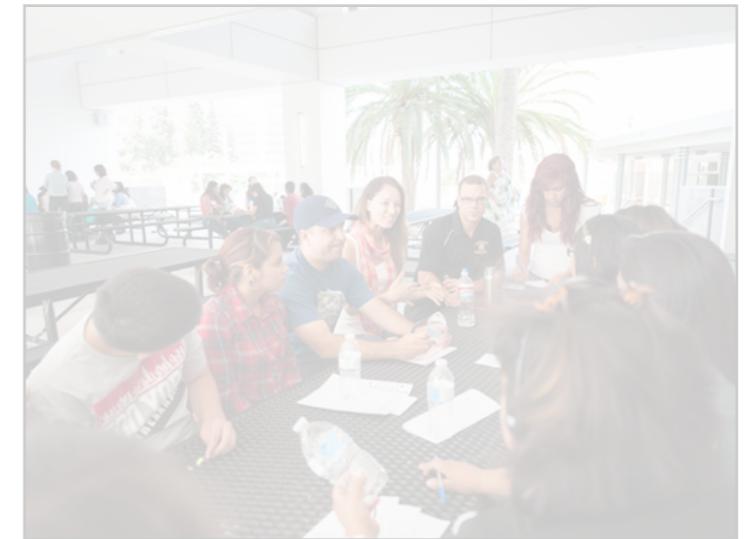


Do an experiment

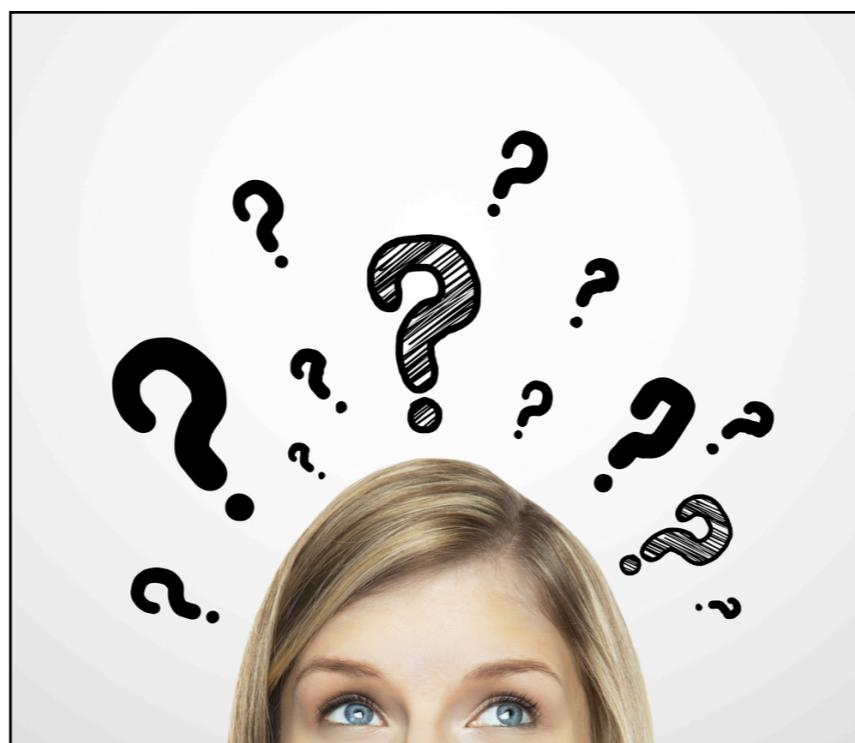


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# Talking to your advisor

## Before

Summarize the work  
you have done already

Put together highlights  
of where you are

Prepare questions for  
what to ask on  
where you are stuck



# Talking to your advisor

## Before

Summarize the work you have done already

Put together highlights of where you are

Prepare questions for what to ask on where you are stuck

## During

Discussions of your work with suggestions for how to move forward

New ideas for research topics, etc.

Advice for professional development



# Talking to your advisor

## Before

Summarize the work you have done already

Put together highlights of where you are

Prepare questions for what to ask on where you are stuck

## During

Discussions of your work with suggestions for how to move forward

New ideas for research topics, etc.

Advice for professional development

## After

What are the agreed upon action items before the next meeting?

# Talking to your advisor

## Example note

2016-03-10 : Pre Mtg (Andreas)

Created: Mar 9, 2016 Updated: Mar 10, 2016

2016-03-10 : Pre Mtg (Andreas)

---

Recap of where we were last time...

---

Last week

- Sorted all the data
- Got to S/N plots for the real components
- Looked at the effect on the 13 MHz line that doesn't get vetoed
- Created a test freq bin as a function of time plot

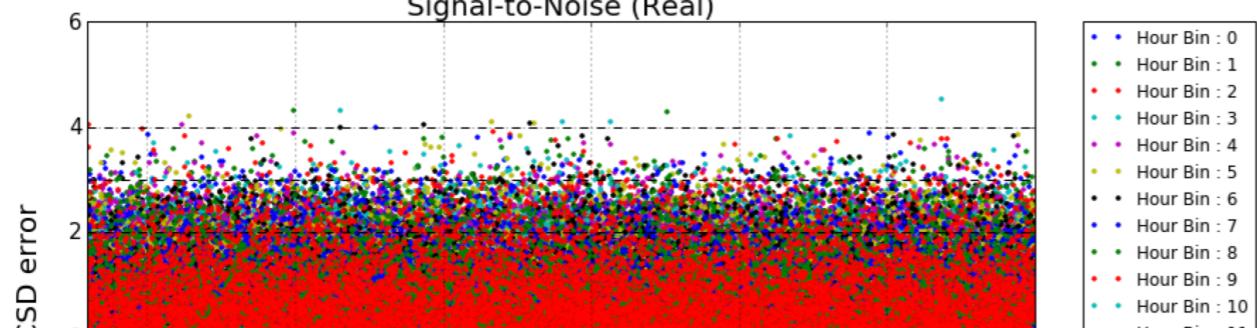
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Comparison of Signal to Noise

---

Plot #1 - S/N real

Signal-to-Noise (Real)



CSD error

Hour Bin : 0  
Hour Bin : 1  
Hour Bin : 2  
Hour Bin : 3  
Hour Bin : 4  
Hour Bin : 5  
Hour Bin : 6  
Hour Bin : 7  
Hour Bin : 8  
Hour Bin : 9  
Hour Bin : 10  
Hour Bin : 11

# Talking to your advisor

## Example note

The screenshot shows a digital note-taking application window titled "2015-11-23 : Post Mtg (Andreas)". The interface includes a toolbar at the top with icons for file operations, text styling (font, size, bold, italic, underline), and sharing. The main content area contains the following text:

2015-11-23 : Post Mtg (Andreas)

---

Time : 2:30 - 3:30pm CST  
Settings : over Skype while I was at home

---

**What I shared :**

- Solved the problem of finding empty groups, no groups at all
- Able to create a histogram through one entire science data directory
- Created a histogram through all the science data
- Showed him the plots of each histograms

**What we discussed in relation to this analysis :**

- The histogram plot should probably be the N effective number instead of the # of 5 minute frames
- That would be more informative what the coverage is

**Discussion about finishing thesis**

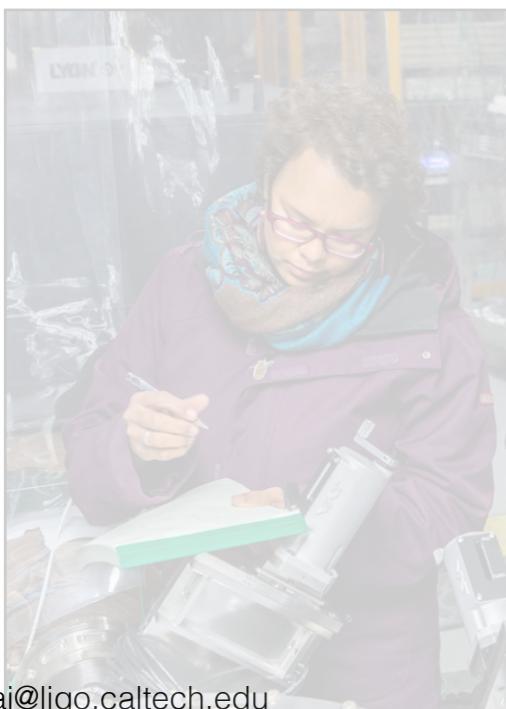
- "It may be aggressive but not unreasonable" -- Andreas
- That's good motivation words for me 😊

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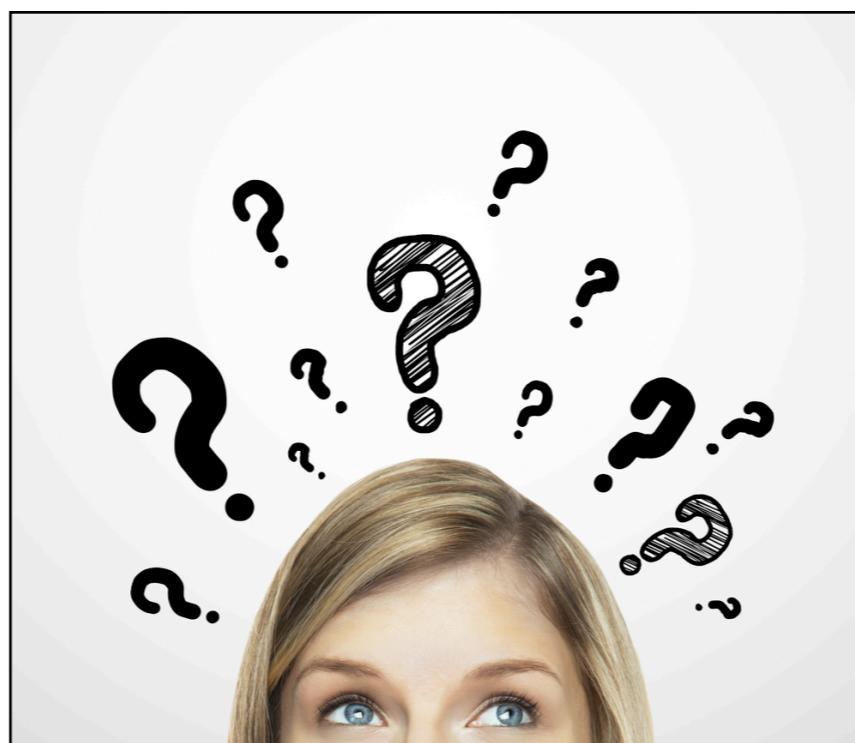


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# Collaborative Notebooks

The screenshot shows a collaborative notebook interface with a sidebar on the left and a main content area on the right.

**Left Sidebar:** Contains a list of notes under the heading "Cosmic Strings". The notes are:

| Title                        | Updated                |
|------------------------------|------------------------|
| Recap from Meetings          | Jul 3, 2018, 3:52 PM   |
| Bulletpoints                 | Jun 27, 2018, 2:19 PM  |
| Jeronimo - Summary           | Jun 19, 2018, 10:06 AM |
| Brittany - Summary           | Jun 19, 2018, 9:26 AM  |
| Paper Todo                   | May 9, 2018, 8:48 AM   |
| How to git                   | May 8, 2018, 5:36 PM   |
| Brittany - to do list        | May 7, 2018, 4:37 PM   |
| Travel + Other commitments   | Feb 13, 2018, 5:40 PM  |
| Paper Notes                  | Feb 1, 2018, 3:31 PM   |
| Proposed 2018 GamePlan       | Jan 11, 2018, 3:36 PM  |
| zNotes about paper structure | Jan 11, 2018, 11:23 AM |
| Upcoming Meetings            | Jan 11, 2018, 10:16 AM |
| Brittany - Notes             |                        |
| Literature Notes             |                        |

A note titled "Recap from Meetings" is highlighted with a purple circle and a callout bubble containing the handwritten text: "Notes that my collaborators and I have made".

**Main Content Area:** The title is "Cosmic Strings". It shows the following details:

- Created: Jan 26, 2017
- Updated: Jul 3, 2018
- You are viewing a note that is shared with 2 people

The content of the note is:

### Recap from Meetings

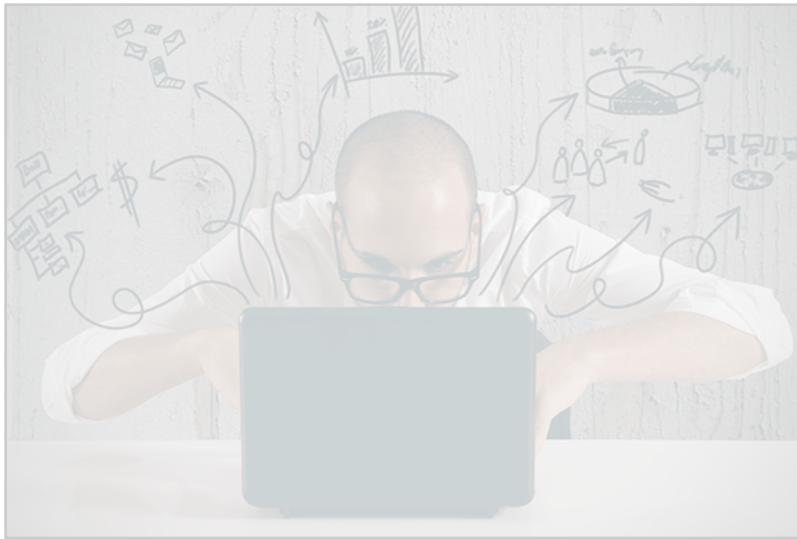
#### Meeting on Tuesday July 3, 2018

- Brittany, Steve, Craig and Jeronimo
- Notes from Craig on the cosmic strings prior that we are assuming
  - We are assuming a prior that cosmic strings have a uniform prior
  - There are potentially a power law of amplitudes
  - Unlikely that this work has been done
  - There are also different shapes of loops
  - One particular shape will have a spectrum that has an amplitude
- Statistics
  - Steve calls it a 'joint probability' == what Brittany calls a 'collective probability'
  - The fancy statistics words is a 'likelihood' analysis
  - **Action item**: We need to compute a likelihood ratio
- Noise curve
  - We need to send different noise curves through the same pipeline
  - **Action item**: Email Jon where the different noise curves are from the tests for laser phase noise, dark noise, 'bright light' noise
- Pathway forward
  - We need to identify that what we found is not a contaminated set of bins
  - We need to establish whether this could be coming from electrical noise or whatever
  - This analysis is being done in a type of scrutiny that has yet to have been done on the data

A large callout bubble on the right side contains the handwritten text: "Shared meeting summary notes".

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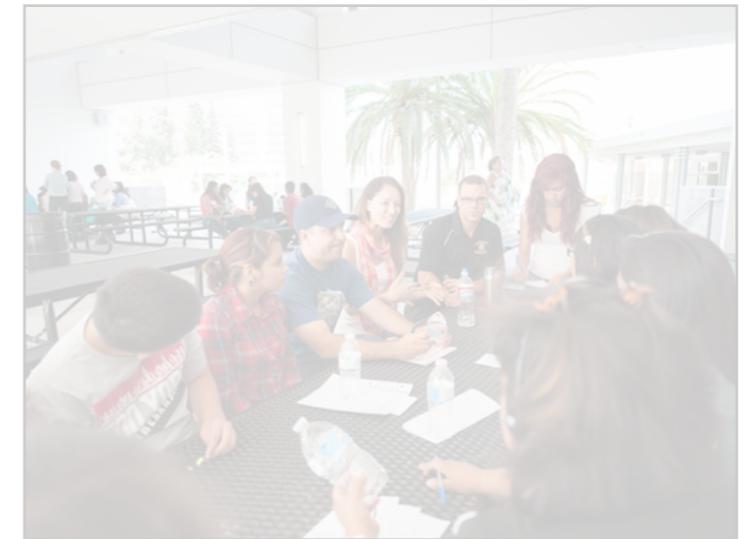


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# Solo Notebooks

## Daily notes

A way to actively keep track of the different topics that you looked up

Keep track of your work in the lab or on your computer

Keep track of the meetings that you were a part of

Keep track of the healthy habits you are implementing to ensure that you are recharging yourself

## Weekly recaps

# Solo Notebooks

04 Jul 2018 - Wednesday

Created: Jul 4, 2018 Updated: Jul 5, 2018

04 Jul 2018 - Wednesday

Morning

- Woke up a lil later because it was difficult to get to sleep last night
- Punked around reading about REI adventures :)
- Meditation
- Yoga
- Running with the doggos
  - They were too cute 😊 and they loved it and now they are super tired which is absolutely amazing
- Shower
- Prepared breakfast tacos which were the absolute bestest
- Made some lunch and dinnz
- Reading outside for 10m

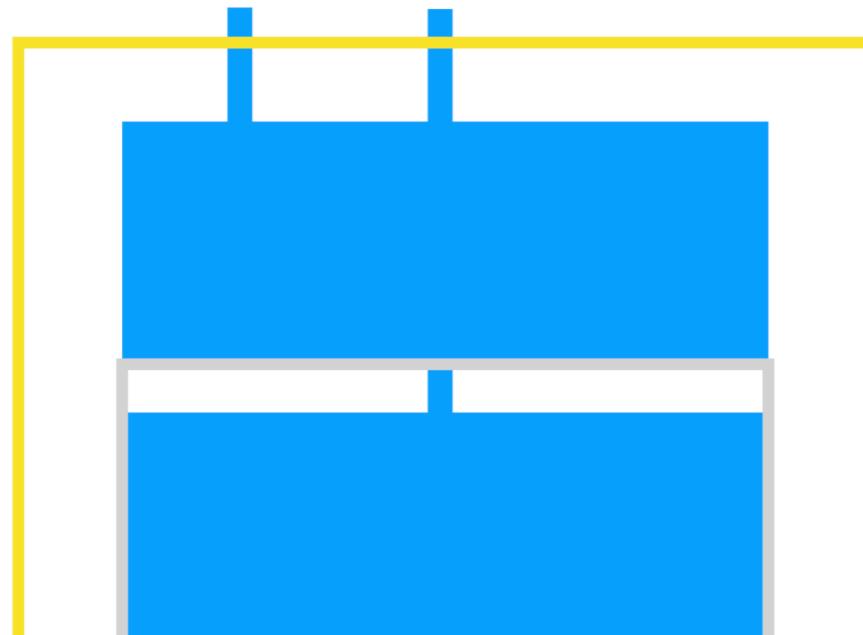
Metamaterials Beyond Electromagnetism

- baby
  - I opened up the document and it seemed as though some of my highlighting was gone from one of the beginning sections so I am going back through it again now
  - It's okay because it is quite helpful
- baby
  - Still reading through the same section and getting a little bored with it so I started skipping around
  - Perhaps my highlights were done on my iPad and that's why it didn't transfer over? well
- punk
  - I started cruisin through the figures which was hella badasssss

*Example daily note*

# Solo Notebooks

- Chose to work on the sketch of the cryostat
- Started it in Qryo/writing/figs/cryosketch
- Started making some boxes which is fun
- punk
  - This is as far as I got



Met Aaron in the lab

- We did some updates
- [Meetings](#)
- I made a list of the little things that I can do to check in on the vacuum

Example daily notes

# Solo Notebooks

## Daily notes

A way to actively keep track of the different topics that you looked up

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## Weekly recaps

Give you a way to actually assess your progress for the week

Useful way to evaluate your time being spent within your research, class time and other commitments

This type of reflections allows you to evaluate if what you are doing during the week is helping you towards your vision of how you want your life to be

# Solo Notebooks

Seismic Cloaking Collab click to add tags

Created: Jun 22, 2018 Updated: Jul 9, 2018

You are viewing a note that is shared with 3 people

kaila : weekly summaries

**Week 4: July 1-7**

- Read Antonakakis et al (2013)
- Got ethernet internet working
- Submitted application for SACNAS travel grant and research presentation
- Worked on NSF ethics training
- Did COMSOL tutorials
  - negative refractive indices
  - hexagonal gratings
  - bandgap photonic crystals
  - acoustic cloaking
- Added references from Wegener (2013) to Mendeley
- Emailed Colombi to ask for more information on what models he used in his 2015 ‘forests as a natural seismic metamaterial’ paper
- Had July 4th off, relaxed and hung out with friends
- Started going through ch. 8 of Shearer (can see notes in [kaila : shearer notes](#))

*Example weekly summary*