Managing your personal literature library

ASTR 8500 Presentation - Aayush Gautam

Disclaimer + Motivation

- All views/suggestions are based on analysis of my personal literature library.
- In this busy (academic) life, we default to the easiest option - chaos.
- But organized chaos is helpful.
- Good habits now → less stress during paper writing + thesis year.

Literature management

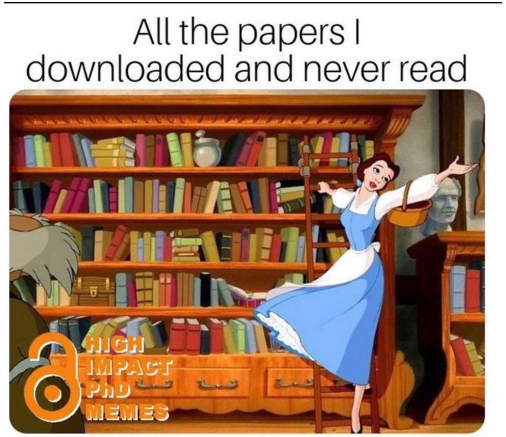
Essential components:

- Collate the downloaded/printed papers
- Read papers efficiently + take notes
- Retain and retrieve information
- Integrate into your writing

Workflow >>> Apps

Notion Google Docs MENDELEY zotero

TL;DR



Be a reader, not a librarian

The Beginning

Interesting paper:

arXiv:2404.00911 [pdf, other]

Clues in Bailey Diagrams Indicate that the Horizontal Branch Evolutionary Effect Is the Direct Reason for Oosterhoff Phenomenon

L.-J. Li, S.-B. Qian, L.-Y. Zhu, X.-D. Shi, W.-P. Liao

Comments: 4 figures

Subjects: **Solar and Stellar Astrophysics (astro-ph.SR)**; Astrophysics of Galaxies (astro-ph.GA)

Another one:

An Informed and Systematic Method to Identify Variable mid-L dwarfs

Natalia Oliveros-Gomez, Elena Manjavacas, Daniella C. Bardalez Gagliuffi, Theodora Karalidi, Johanna Vos, Jacqueline K. Faherty

Comments: Accepted for publication in ApJ. 22 pages, 13 figures, 3 tables. GitHub code: this https URL

Subjects: **Solar and Stellar Astrophysics (astro-ph.SR)**; Earth and Planetary Astrophysics (astro-ph.EP)

Keep going:

Detecting Gravitational Wave Memory in the Next Galactic Core-Collapse Supernova

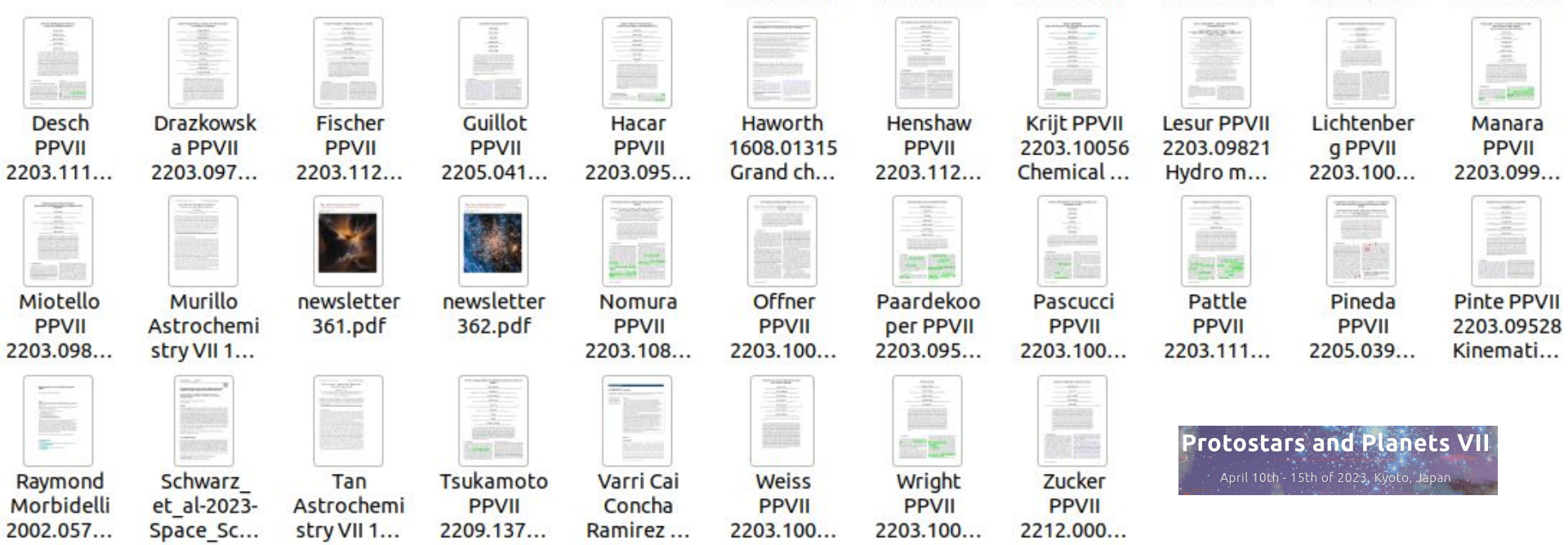
Colter J. Richardson, Haakon Andresen, Anthony Mezzacappa, Michele Zanolin, Michael G. Benjamin, Pedro Marronetti, Eric J. Lentz, Marek J. Szczepanczyk

Comments: 8 pages, 5 figures

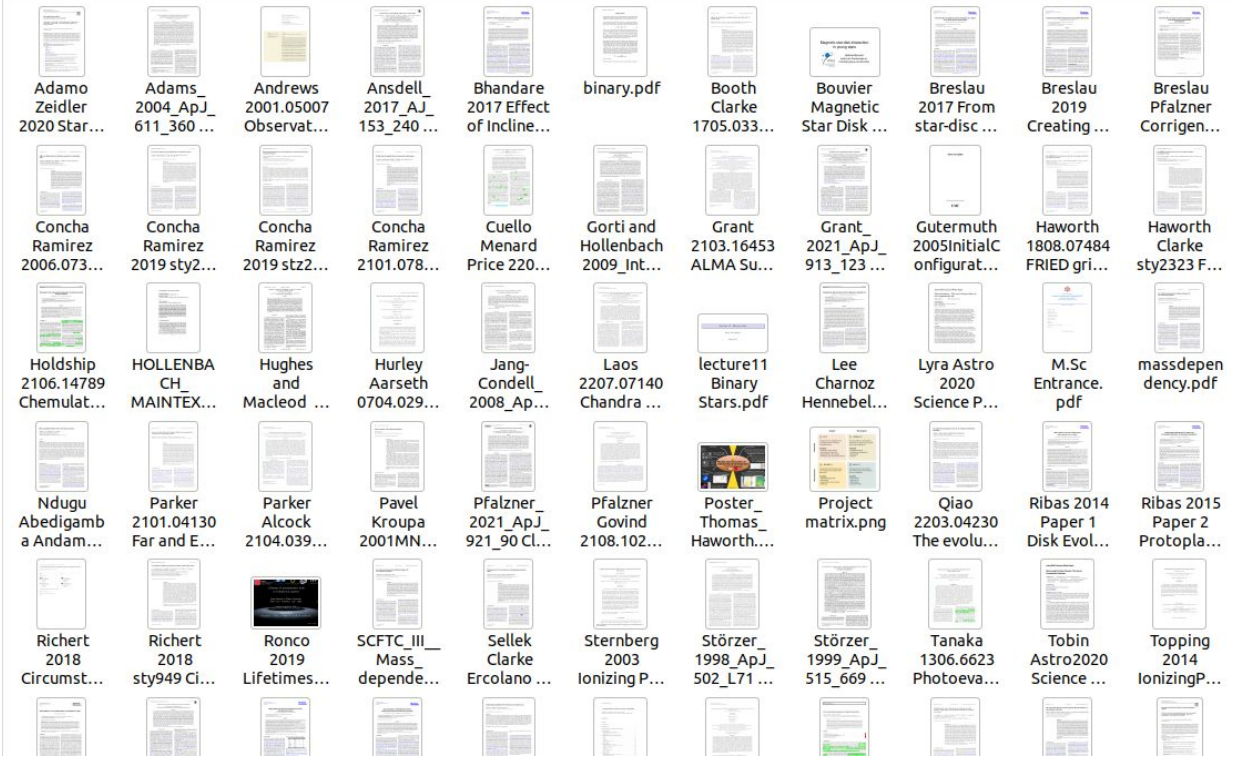
Subjects: **High Energy Astrophysical Phenomena (astro-ph.HE)**; General Relativity and Quantum Cosmology (gr-qc)

A paper a day keeps academic regret away.

The Plot Thickens

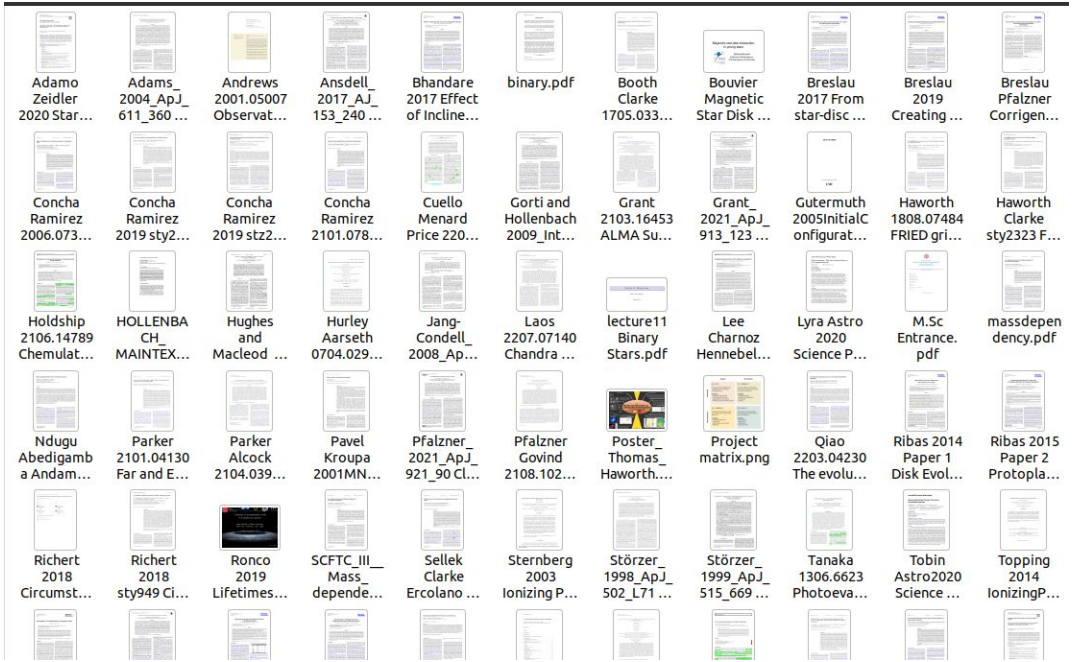


Welcome to (Controlled?) Chaos



Keeps going

Considerations



Collation:

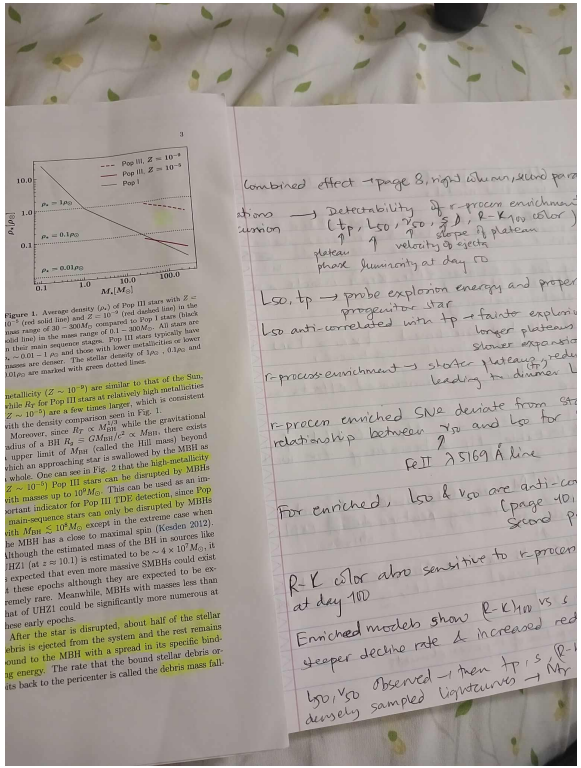
- What is the unique ID? Journal name, Year, Arxiv id, Author name, and so on?
- Duplicate entries?
- Preprint to paper transition
- Crazy name authors
- Collaboration papers
- Slides
- Files that randomly walked in
- More, even more folders

Considerations

Efficient reading + Information retrieval:

- Months down the line, you have 100+ papers.
- Do you really want to read each of the papers all over again? No time and patience left.
- Are you sure you read ALL papers?
- Did you not take notes?
- Did you summarize - What were the main points and your critiques?
- How do you manage the summaries now?

Workflow 1: Pen and paper



Pros

- Better understanding and retrieval
- Less eye stress
- Less distractions from devices
- Write as you read - summary, criticisms, extensions
- Writing process has kind of started

Cons

- Cannot print EVERY paper
- Citations need to be done eventually

Workflow 2: Mendeley +/ Google docs

ProtoPlanet Disk Project Edit Settings

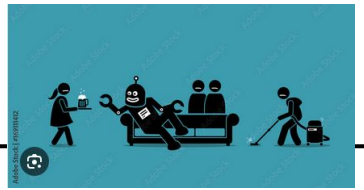
Authors	Title	Year	Published In	Added
Zurlo, Alice; Gratton, Raffaele; Pérez, Sebastiá…	Observations of planet forming disks in multiple stellar systems	2023		8 May 23
Mendigutía, I.; Solano, E.; Vioque, M.; Balaguer-Nu…	Gaia EDR3 comparative study of protoplanetary disk fractions in young stellar clusters	2022	Astronomy and Astrophysics	15 Jul 22
Bae, Jaehan; Isella, Andrea; Zhu, Zhaohuan; Martin, R…	Structured Distributions of Gas and Solids in Protoplanetary Disks	2022		4 Oct 23
Reiter, Megan; Parker, Richrd J.	Dynamics of young stellar clusters as planet forming environments	2022	EPJ Plus	8 Oct 22
Qiao, Lin; Haworth, Thomas J.; Sellek, Andrew D.; Ali, …	The evolution of protoplanetary discs in star formation and feedback simulations	2022		10 Mar 22
Winter, Andrew J; Haworth, Thomas J; Coleman, Gavi…	The growth and migration of massive planets under the influence of external photoevaporation	2022	Monthly Notices of th…	16 Aug 22
Winter, Andrew J.; Haworth, Thomas J.	The external photoevaporation of planet-forming discs	2022		16 Aug 22
Laos, S.; Wisniewski, J. P.; Kuchner, M. J.; Silverberg…	Chandra Observations of Six Peter Pan Disks: Diversity of X-ray-driven Internal Photoevaporation …	2022		31 Jul 22
Cuello, Nicolás; Ménard, François; Price, Daniel J.	Close encounters: How stellar flybys shape planet-forming discs	2022		31 Jul 22
Coleman, Gavin A. L.; Haworth, Thomas J.	Dispersal of protoplanetary discs: How stellar properties and the local environment determine th…	2022		25 Apr 22
Wilhelm, Martijn J. C.; Zwart, Simon Portegies	Exploring the possibility of Peter Pan discs across stellar mass	2021		9 Sep 21
Grant, Sierra L.; Espaillat, Catherine C.; Wendeborn…	An ALMA Survey of Protoplanetary Disks in Lynds 1641	2021	The Astrophysical …	11 Jul 21
Lee, Yueh Ning; Charnoz,	Protoplanetary disk formation from the collapse of a	2021	Astronomy and	20 Jul 21

Pros

- Less worry for designing the perfect naming scheme
- Can highlight stuff + take notes
- Easier to export citations

Cons

- Storage limits
- Stuck to the screen all day



Wisdom

Buddha

- Accept that there is no single perfect method.
- Utilize the best aspects of each method.
- Develop a literature management workflow that works best for you.
- The classic feel of a paper at your hand. The highlighter and the binder.
- The synchronization and citations from reference managers.
- Dedicated project folders on your Google Drive / OneDrive for backup and organization.
- Controlled chaos in your Downloads folder. Move them to folders periodically.

References

1. https://academia.stackexchange.com/questions/173305/how-do-you-manage-your-literature-and-references
2. https://www.blogs.hss.ed.ac.uk/pubs-and-publications/2016/10/17/preparing-for-your-literature-review/
3. https://journalistsresource.org/home/organizing-your-research/
4. Countless image credits!
5. https://www.youtube.com/watch?v=vKXNbVx8dKw
6. https://youtu.be/_GG22GKCjHQ?si=KoHYe90d-kY3AA3z