

HOW 2 APPLY 4 STUFF*

(STRATEGIC THINKING AND TIPS FOR JOB APPLICATIONS, FUNDING, AND CAREER PLANNING)

(* IN MY HUMBLE AND TOTALLY BIASED
OPINION

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OUTLINE

- ✻ Some initial thoughts on the whole process
- ✻ Strategy/resources*
- ✻ Different kinds of positions and other general advice for job hunting strategy*
- ✻ How to write a good application & deal with letters of recommendation
- ✻ **Group discussion**

*including lots of stuff for online perusal later

WHY LISTEN TO ME?

- ✱ I have a pretty good track record at applying 4 stuff (NSF graduate fellowship, 2 postdoctoral fellowships, net worth to date in grants as PI/mainCoI ~ 7M€)
- ✱ Been on 5 faculty hiring committees (some for multiple hires) + NSF CAREER grant panel + Chandra, Einstein and NSF A&A Postdoc Fellowship panels
- ✱ I care about advising younger researchers so I've given this talk a lot of thought!

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WHY I GIVE THIS TALK

- ★ If you are enthusiastic, working in an active field, have good letters and a decent number of publications, getting a(nother) postdoc position is likely not going to be a problem
- 👉 However, getting the *best* position that will put you on a more direct track to a *permanent position* generally requires more effort (unless you are a rare genius, or you get lucky and discover something groundbreaking, in which case just go home now or take a nap!)
- 👉 Academia is very competitive, not unlike sports. To win you should set goals and you need to understand the game, and think ahead, as early as possible! Success doesn't come without hard work and training!
- 👉 We (I very much include myself here) tend to be a bit autistic, so while some of this will be obvious to many of you, I'm also trying to reach those for whom it will not be obvious (and you'd be surprised)!
- 👉 There's a lot of anxiety involved in this process, leading to procrastination. By giving you a sense of the various aspects involved, I hope to "demystify" what may seem like a scary process, and encourage you to **begin earlier!!**

THE FIVE KEY POINTS

★ If you retain anything from this talk, retain at least these five points:

👉 Always remember why science is cool (enthusiasm)

👉 You need to have “gumption”

THE CONCEPT OF GUMPTION

gumption |'gʌmp sh ən|

noun informal

shrewd or spirited initiative and resourcefulness : *she had the gumption to put her foot down and head Dan off from those crazy schemes.*

ORIGIN early 18th cent. (originally Scots): of unknown origin.

informal *we never thought Clarence would have the gumption to stand up to the committee—and actually get what he wanted:* **initiative, resourcefulness, enterprise**, ingenuity, imagination; **astuteness, shrewdness, acumen, sense, common sense**, wit, mother wit, **practicality; spirit, backbone, pluck, mettle, nerve, courage**, wherewithal; informal get-up-and-go, spunk, oomph, moxie, savvy, horse sense, (street) smarts.

THE FIVE KEY POINTS

- ★ If you retain anything from this talk, retain at least these five points:
- 👉 Always remember why science is cool (enthusiasm)
- 👉 You need to have “gumption”
- 👉 You need to develop both independence, and the ability to be **self-aware/self-critiquing**
- 👉 Do NOT rule out jobs too early, based on location
- 👉 Start preparing your application *WAY BEFORE* your first deadline (I recommend >2 months for postdocs/fellowships, >3 for the first faculty apps)!

INITIAL THOUGHTS:

- ☼ The job search can, in many ways, be compared to dating:
 - Just like “The Game”, there’s a lot of bad advice out there!
 - You are looking for the right “match”
 - You are being judged, at the same time that you are judging
 - First impressions are very important
 - You don’t want to seem desperate, but you don’t want to seem uninterested either
 - If you treat potential candidates badly, you will get a bad reputation...it’s a small world, people do talk to each other!
 - There is no accounting for taste ☞ luckily not everyone wants the same thing!
 - Bad experiences teach you valuable lessons for the next time
 - You want to build up a record of past experience that looks appealing enough to attract “the one” (but maybe not too much...)

INITIAL THOUGHTS II:

KNOW WHAT IT TAKES TO GET WHERE YOU WANT TO BE!!

- ✻ **There are many paths to a satisfying career in Astronomy with a permanent position**
 - **There are many options beyond the university: working with observatories (esp. in the EU!), as well as labs, “Big Data”/Data Science/Archive centres**
 - **Many people don't like teaching, or have the patience for supervising students, or committee work. You need to be honest with yourself about what aspects of the job you enjoy and aim for that type of position that fits you best**

MANY POSSIBLE PATHS

Phil Uttley:
PhD Southampton

Postdoc
Southampton (3 yr)

NRC Associateship,
NASA GSFC (2 yr)

Marie Curie
Fellowship,
Amsterdam (1 yr)

STFC Advanced
Fellowship + Lecturer
Southampton (4.5 yr)

UHD (associate prof.)
Amsterdam (4+yrs)

Sera Markoff:
PhD U Arizona

Humboldt Research
Fellow, MPIfR (3 yr)

NSF Postdoc Fellow,
MIT (3 yr)

UD (assist.prof),
then UHD (assoc.pr.),
Amsterdam (9+yrs)

Key:

- Regular postdoc (PDRA)
- Postdoc Fellowship
- Permanent position

Michael Wise:
PhD U Virginia

NOAO Postdoc
(Tucson, Az) 3 yr

"AXAF" Postdoc
↓
Senior Research
Scientist
(MIT, 11 years)

LOFAR Software
Group Lead → LOFAR
Project Scientist →
Head, Astronomy
Group
(ASTRON, NL, 9+ yrs)

INITIAL THOUGHTS III:

KNOW WHAT IT TAKES TO GET WHERE YOU WANT TO BE!!

☼ The days of the “one trick monkey” are over

- It used to be that being really good at one thing and one thing only was enough. These days the competition is high enough that if you want the best chance, you should develop multiple skill sets
- NEVER STOP LEARNING (even after permanency comes!)

INITIAL THOUGHTS IV:

KNOW WHAT IT TAKES TO GET WHERE YOU WANT TO BE!!

☼ World mobility is *really* changing things!

- You can no longer always count on easily finding a job in your home country, because it's increasingly more common to move
 - ▣ more competition = tougher job market
- Consider *all* the options, do NOT limit yourself to one location, and if you must, be aware that this may harm your chances for finding a permanent position
- This can be difficult if you have a 2+ body situation, you should be aware, discuss with your partner, agree on guidelines
- Maybe better to make sacrifices for shorter time (couple years) now, rather than ending up longer term in a non-ideal situation

INITIAL THOUGHTS V:

- ☼ Do not rule out too many possibilities too early
 - What you're sure you won't take today may look awfully appealing when you are facing unemployment. Think about it like insurance!
 - ☞ *(I cannot emphasize enough how many times I have seen people ignore this piece of advice and live to regret it !!!)*
- ☼ The job application process is very time consuming
 - This isn't something you can just do in a day (emotional=harder)
- ☼ It is not generally a statement about your abilities to get rejected, be prepared to try again and again
 - It may feel like the "moment of truth", but like dating, the match and the timing is everything...some years what you do may be "hot", others "not", it can be a bit stochastic
 - Especially with fellowships, often it takes multiple attempts. There is absolutely no shame in reapplying. Like anything, practice makes perfect.

FINAL INITIAL THOUGHT!

- ★ There is more than one way to be a good scientist. People excel at different things, each is an important skill and way to an fulfilling career. I can think of at least four:
 - 👉 Building cool experiments/infrastructure
 - 👉 Deep theoretical discoveries: usually narrowly focused
 - 👉 New, cutting edge observational/experimental discoveries or confirmation of theories
 - 👉 Synergizers: people who see new patterns or connections often between disciplines/groups
- ★ Do NOT compare yourself to others in terms of talents, focus on improving your own CV!

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THERE IS NO MAGIC BULLET

- Getting a permanent position comes down to (IMHO): $\sim 1/3$ scientific ability, $\sim 1/3$ secondary skills (communication/writing/networking) and $\sim 1/3$ some random combination of being at the right place at the right time and sheer, dumb luck
- You can optimise your chances by spreading your net widely via having many skills, working with different communities, being open-minded, and coming up with a good strategy
- That strategy has to start with *knowing yourself, and knowing where you want to end up!* It obviously won't be the same for everyone, and that is ok!

STRATEGIZE: BE AWARE OF WHAT IT TAKES TO GET THE JOB YOU WANT

- Committees hiring for faculty positions at research-1 type institutes generally want to see: great and relevant science, independent and creative thinking, initiative, demonstrated leadership, ability to get funding, teaching/mentoring abilities, and of course a good fit to their program. Many places also consider a good fit to the institute “culture”!

STRATEGIZE: BE AWARE OF WHAT IT TAKES TO GET THE JOB YOU WANT

● How? Just a few examples:

- **independence:** The ERC Starting Grants asks for a list of publications *without* your PhD advisor! During your PD phase make sure to work on (some) new ideas with new people.
- **leadership:** Try to be PI of some proposals, for funding or observations. Or if you are part of a large collaboration, you need to “take over” a small piece of the project/analysis and be *visible* as such within the group. Write a review article!!
- **initiative:** You went out and got an independent fellowship, you started a journal club, you initiated a new project with new people (who write you letters), you pursued a new type of experiment/observation...
- **funding:** At any level you can win smaller competitive grants like scholarships, travel funds, summer school grants, or “best paper/poster” prizes at conferences/schools

STRATEGIZE: BE AWARE OF WHAT IT TAKES TO GET THE JOB YOU WANT

- If you want to land a faculty job at Harvard/MIT/Caltech/Princeton/Stanford etc, everything you do needs to be turned up to “11”. Two named PD fellowships are pretty much the minimum requirement these days.
- Don't forget: lateral moves are possible and frequent! Given tenure rates at those schools, this is a potentially better strategy anyway....
- Non-academic positions (labs/observatories) can often have more focused requirements, and less pressure. This can be a major advantage for life/work balance!

STRATEGIZE: BE AWARE OF WHAT IT TAKES TO GET THE JOB YOU WANT

- Don't trust me! A foolproof way is to look at the CVs of people who have jobs you like. These days it's possible to find out (almost) everything you need to know on the internet, most people post their CVs on their webpages.
- Point is: if you know what you need early enough, there is time to "course correct" but it's *entirely up to you* to be aware of what the standard/bar is, and to gauge how close you are to it

STRATEGIZE: TIMING YOUR APPLICATION SEASON

- ✻ Get organized to be ready for the “top” hunting season, know relevant deadlines well in advance!
- The main advertising “season” is the autumn for jobs starting the next autumn, but you will find things year round:
 - Competitive fellowships are a worthwhile goal: get more independence, usually more money, and more prestige. These are usually on fixed schedules, most have due dates in autumn.
 - Jobs offered from someone’s grant or paid from a large experiment are usually more flexible in terms of start/end times.

STRATEGIZE: TIMING YOUR APPLICATION SEASON

- ❖ If you are finishing (anything) in 2016, this coming autumn is when you should begin seriously applying now, up to **ONE YEAR** in advance!!
- ❖ **Examples:** about 67 postings on AAS job register for PDs in September 2014, many of which were top fellowships, compared to only 33 in March 2014!! For faculty positions, there were 25 in October 2014 compared to 8 in March 2014.

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FINDING POSITIONS

- Where to look? Depends on your field, but here are a few suggestions:
 - AAS job register (<http://jobregister.aas.org>), for all astronomy-related positions, from PhD to Faculty
 - EU EURAXESS “mobility portal” (<http://ec.europa.eu/euraxess/index.cfm/jobs/index>)
 - Academic jobs online (<https://academicjobsonline.org/ajo>)
 - INSPIRE (<http://inspirehep.net/collection/Jobs>)
 - Websites of specific institutes or national professional societies
 - Mailing lists of collaborations
 - In publications like PRL, Physics Today, Nature, Science, etc...

FINDING NON-ACADEMIC POSITIONS

- There is a really nice site for astronomers looking for nonacademic jobs:
 - <http://www.jobsforastronomers.com/>
- There's also a LinkedIn group for "Astronomers Beyond Academia: <http://linkd.in/Uzn7wL>

DIFFERENT KINDS OF POSITIONS (PD)

- There are generally various categories of PD positions roughly in order of competition/prestige:
 - Named Fellowships (often country or EU-wide but not institute specific), typically 3yr
 - Fixed-term (often 5 yr) research positions, institute specific, often seen as “junior faculty” type positions (rare in US, but more common in EU)
 - Named Fellowships (institute specific), typically 3yr
 - EU Initial Training Network type positions, typically 2yr
 - “Created” Fellowships (usually institute specific, often based off specific projects but recast as fellowships), typically 3yr
 - Fixed-term research positions off grant money (project specific), typically 2-3yr

DIFFERENT KINDS OF POSITIONS (PERMANENT)

- Permanent positions are extremely country-dependent, so take this with a grain of salt:
 - Research-oriented universities (international, good funding, good resources): typical teaching loads ~1-2 courses/year (~50 CHs)
 - Teaching-oriented position @ university: same as above but loads can be ~200 CHs! [CH= contact hour]
 - Teaching-oriented universities (less international, often more limited resources for research): much higher loads + student supervision similar to teaching-oriented position
 - Research-only institutes/observatories, labs: can be national/international, huge variety in types of positions and duties
 - Research within a company (think: data science) or museum/outreach, usually national in focus

NAMED PD FELLOWSHIPS

☼ First type: non-institute specific (many but not all!), not in any particular order:

- ❖ EU Marie Curie Individual fellowships (all fields -- <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-msca-if-2014.html> -- due 11/9/14) → often require PhD in hand to apply!
- ❖ ESA Postdoc Research Fellowship program (ESTEC or ESAC, Madrid) (ESA member countries, plus few others -- anything space related -- <http://www.rssd.esa.int/fellowship> -- 1/10/14)
- ❖ ESO Postdoc Research Fellowship program (Garching, DE or Chile) (EU member countries? -- Optical/IR astronomy -- <https://www.eso.org/sci/activities/FeSt-overview/ESOfellowship.html> -- 15/10/14)
- ❖ Humboldt (Germany -- any field, <http://www.humboldt-foundation.de/web/sponsorship.html>, multiple deadlines per year)
- ❖ STFC (UK++ -- anything -- <http://www.stfc.ac.uk/566.aspx>-- various)

NAMED PD FELLOWSHIPS

- ☼ More non-institute specific, not in any order, including US-specific ones:
 - ❖ NWO Veni (NL -- anything -- <http://www.nwo.nl/en/funding/our-funding-instruments/nwo/innovational-research-incentives-scheme/veni/index.html> -- January 2015) → need to have PhD thesis approved to apply!
 - ❖ NWO Rubicon (NL/Other -- anything -- <http://www.nwo.nl/en/funding/our-funding-instruments/nwo/rubicon/index.html> -- 3/9/14) -- limited to 1-2 yrs, now only for people who did PhDs at Dutch institutes to go abroad
 - ❖ Einstein (X-ray/γray, accretion theory, particle astrophysics, cosmology, dark energy, gravity waves -- <http://cxc.harvard.edu/fellows/> -- ~1/11/14)
 - ❖ Hubble (IR/O/UV/theory -- <http://www.stsci.edu/institute/smo/fellowships/hubble> -- ~1/11/14)
 - ❖ Carl Sagan (exoplanets -- <http://nexsci.caltech.edu/sagan/fellowship.shtml> -- ~1/11/14)
 - ❖ NSF (need to be US citizen/resident--anything -- http://nsf.gov/funding/pgm_summ.jsp?pims_id=5291&org=AST&sel_org=AST&from=fund -- 8/10/14)
 - ❖ Jansky (radio, theory, some are NRAO specific -- http://www.nrao.edu/administration/directors_office/jansky-postdocs.shtml -- ~15/11/14)

NAMED PD FELLOWSHIPS

- ✿ For US non-institute specific -- many of these ask you to pick 3 candidate institutes
 - ❖ Everyone wants to go to take their fellowships to Harvard/CfA, MIT, Caltech, U Chicago, UC Berkeley, Princeton, Yale, etc., but many fellowships also have a policy of one new fellow/institute/year
 - ❖ There are many great universities that are rated for astronomy/physics at the same level as the fancy schools. Ultimately you will succeed anywhere you know someone good you'd like to collaborate with, that has an active and lively research environment.
 - ❖ I recommend also considering places that will not be so oversubscribed, if you make it to the short list it may even give you a bit of an edge

NAMED PD FELLOWSHIPS

☼ Second type: institute specific (just some examples!)

- ❖ Miller Fellowships (UC Berkeley -- anything -- <http://millerinstitute.berkeley.edu/page.php?nav=11> -- two stage: *nomination!!* 10/9/14, proposal 10/10/14)
- ❖ CfA Multiple Fellowships (CfA -- astro/theory -- <http://www.cfa.harvard.edu/opportunities/postdocs.html> -- various Oct/Nov 2014)
- ❖ Pappalardo Fellowship (MIT-- physics -- <http://web.mit.edu/physics/research/pappalardo/index.html>-- must be *nominated* by Sept 2014)
- ❖ CITA Fellowships (Canada-CITA--theoretical astro, multiple fellowships -- <http://www.cita.utoronto.ca/opportunities/post-docs/> -- Fall 2014)
- ❖ Caltech Prize Fellowships (Caltech --physics/astro -- <http://www.pma.caltech.edu/GSR/positionsavail.html> -- various Fall 2014)
- ❖ NASA postdoctoral program (any US nat'l lab-- anything -- <http://nasa.orau.org/postdoc/application/index.htm> -- 3x/year, next 1/11/14, 1/3/15, 1/7/15) but note that they have significantly cut the number of foreign nationals allowed!
- ❖ Max Planck Institutes (Germany -- anything -- http://www.mpg.de/career_programs -- [varies](#))
- ❖ Perimeter Institute (Canada -- fund. phys. -- <http://www.perimeterinstitute.ca/about/careers/positions--> November 2014)

☼ Don't forget Asia! China, Taiwan and Japan are on the rise in science in a major way. There are several fellowships at top institutes, some are offered in association with EU institutes like the Max Planck Ges.

SOME ASIAN A&A FELLOWSHIPS

☼ Thanks to (now graduated) API PhD Yi-Jung Yang:

There is this East Asian Core Observatory Association fellowship, it's very well paid but very competitive. Dec 2014
<http://naoj-global.mtk.nao.ac.jp/EACOA-E/fellowship/index.html>

Also, the JAXA International top young fellowship (deadline May 2015)
http://www.jaxa.jp/employ/index_e.html

Sometimes there are special fellowships for projects, i.e. ALMA. But it's not regular, and is based on funding situation. Usually if there is a position open, it will be announced in the website. Below is the list of major astronomical institutes in northeast Asia.

Taiwan: Academia Sinica Institute of Astronomy and Astrophysics (ASIAA) <http://www.asiaa.sinica.edu.tw/>

Japan: National Astronomical Observatory of Japan (NAOJ) <http://www.nao.ac.jp/E/index.html>

China: Shanghai Astronomical Observatory (SHAO) <http://www.shao.cas.cn/>

The National Astronomical Observatories. Chinese Academy of Sciences (NAOC) <http://www.bao.ac.cn/>

Purple Mountain Observatory (PMO) <http://www.pmo.cas.cn/>

Korea: Korea Astronomy and Space Science Institute (KASI) <http://www.kasi.re.kr/english/>

ANOTHER HELPFUL LISTING (MORE UK FOCUSED)

☼ Thanks to Dr. Rhaana Starling, at University of Leicester, for this additional list of links (some overlap with mine):

<http://www2.le.ac.uk/departments/physics/people/equality/fellowship-listing>

OTHER GENERAL ADVICE (PD)

☼ Some other things to keep in mind:

- ❖ There is an explosion in “fellowships” these days, and they are not equally prestigious or free in terms of research. Be sure to know what you’re being offered (ask external people)
- ❖ The majority of positions out there will involve working for someone off their personal grant. Generally gives you less control over the research, but will be *equally productive if...*
 1. You like the person/get along with them (very important!)
 2. You like the research topic and you can *demonstrate initiative!*
 3. You are at a good institute with other people to interact with
 4. There are sufficient resources (decent office/computer/facilities)
 5. Travel budget-- very important!! Ask for specifics
 6. You have some percentage (usually ~40% of the time IF you fulfill your other duties) to do your own research

TIMING STRATEGY (PD)

- ❁ Half the game is knowing how to play
 - ❖ Catch the first application “season” in the early Autumn
 - ❖ USA “standard decision time” is February 15!!
 - ❖ This gives you a shot at the “second wave” offered in the spring, plus you may have feedback on prior applications
 - ❖ Always apply for as many fellowships as you qualify for, in any land you’d be willing to live! Should be your first target
 - ❖ Always apply for as many non-fellowship jobs as you qualify for, but ONLY those you would actually consider taking!!! [But, again, I advise against ruling out based on location!]
 - ❖ Do not take a PD job requiring teaching (optional is ok, then you can choose load), **unless** you want a teaching-oriented faculty job, in which case you actually need some (be careful to keep publishing!) experience on your CV!

NOTES FOR PD FELLOWSHIPS

- **Note:** to apply for especially the big named PD fellowships it is **NOT** the idea that you have entirely new, independent ideas all on your own yet! No one expects that.
- Most fellowships require a host or someone to nominate you → critical to identify that person (ideally 6+ months ahead of the deadline). You may or may not work closely with this person, but it's important for your career development to have a local mentor/collaborator.
- Contact that person, ask if they would be interested in being your host, send some ideas and work together with them on the goals/ideas of the proposal! You have to do the heavy lifting, they will just advise and comment on your drafts, but they benefit if you succeed by getting a free group member!
- The earlier the better: your ideal host may already have been approached by someone else otherwise

PR STRATEGY

- ☼ To get your name “out there” by decision-making time, you should plan lecture tours in autumn, and attend conferences
 - ❖ If you are applying for any jobs this year, you should seriously consider the winter meeting (early January) of the American Astronomical Society (www.aas.org, look at their career services page)
 - ❖ Largest meeting of international astronomers besides the IAU general assembly (every three years), most advanced career services I’ve seen
 - ❖ Many positions conduct interviews at the AAS. I hired my last postdoc based on his AAS talk and subsequent interview!
 - ❖ Mention on job apps that you will be there, in case someone just might want to meet you in person
- ☼ Consider other PR avenues (always within reason, always with care): blogging, posts on Facebook Astro groups, TED talks, YouTube videos, etc.

OTHER GENERAL ADVICE (PD)

☼ Some other things to keep in mind:

- ❖ It is ok to ask questions about advertised jobs, but don't pester...make sure they are good, serious questions
- ❖ Do NOT get hung up on the idea that you can or should only do what you did for your PhD!! I strongly believe you can switch between subtopics, a first PD in particular can be like a 2nd PhD. It's a very good opportunity to widen your scope, learn something new, move to a different subfield, etc. Drastic changes in fields are much harder, but can be done.
- ❖ The risk of staying in the exact same area is becoming "locked in" or "too narrow"...plus you will qualify for more positions if you have multiple areas of expertise
- ❖ It is very important to demonstrate independence from advisor, so whatever you do, make sure to *lead* a project at least slightly different than what your PhD advisor does, somewhere during your PD years!

OTHER THINGS TO BE AWARE OF FOR USA (+ASIA)

- ☼ Be aware of differences in work culture vs. living culture!
 - ❖ In the US there is some “official” vacation time (4 wks?) but no one really pays attention to that as long as you get your work done. Don't ask about vacation in interview...it comes off badly
 - ❖ That said, it would be very unusual for a postdoc to take off for a month at a time if working off someone's else's grant, even in the EU!
 - ❖ Insurance is complicated (“Obamacare” in evolution), usually there is a choice of plans so find out how it works, and if the job includes benefits. Plans can vary widely in coverage and price, but often do not include dental/optical (!) though this may be changing...?
 - ❖ Very few cities are accessible only by public transport or bike...need to keep that in mind when factoring costs, not to mention housing. But PDs generally are better paid than in Europe (in units, i.e., typical is ~\$55-66k + research budget)

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WRITING A GOOD APPLICATION

- Applying for jobs is **VERY** time consuming because you really *cannot* send out the same one for all jobs! Be prepared to spend at least some time tailoring each one, even a small investment can pay off
- Applications usually consist of
 - Cover letter
 - CV + Publication list
 - Research Statement (or essay, for fellowships)
 - Teaching Statement (faculty)
 - 3-5 letters of reference (depends on level)
- General tone should be “confident yet reasonable”: don’t brag, but don’t underplay your talents either
- Reviewers typically read 10s-100s+ applications: CV, publications, references first, so CV is really key!!

BASIC CV LAYOUT

● CV general structure

- ◆ **Basic info:** Name, current position and contact info, citizenship (DoB, marital status and photo *not* done in US but normal in EU!)
- ◆ **Education section:** start with university degrees only. Write your degree name in native tongue, then translate to system where you are applying, i.e.: “U Antarctica, Diploma Bovinus Scientiae (equiv. to Bachelors Degree)”
- ◆ **List PhD thesis title and advisor**
- ◆ **List all research jobs/experience that are *relevant*** (no nonacademic jobs unless there’s good reason)
- ◆ **List all awards/major grants!**
- ◆ **List recent invited talks/colloquia + contribute talks (separately)**
- ◆ **List all skills (computer programming etc)**
- ◆ **List all languages and level of fluency**
- ◆ **In the US it is *not* common to list external interests or at least not too many. I recommend against it for US applications.**

PUBLICATIONS

- **Some applications want this as part of the CV, some want it as a separate list, make sure to follow instructions!**
- ◆ **Generally no one wants to see all your conference talks/proceedings (too many can be interpreted as ‘filler’ – an attempt to pad a sparse record). Suggestion: list a few, then make use of a short URL link to the full ADS list.**
- ◆ **Be very careful about listing papers that have not yet been submitted to a journal. Since there is no proof of the existence of these papers, this mainly looks like padding. If you do list them, put them in a separate section like “works in progress” to make clear you are not trying to lump them in with actual papers!**

WRITING A GOOD APPLICATION

- Letters of reference/recommendation
 - ◆ *This is probably one of the more important, yet tricky aspects*
 - ◆ Ideally you want very positive letters from people who know you and your work well, but who also have name recognition in the field you are applying **⇒ think ahead (whom will you ask??)**
 - ◆ There are two camps: 1) those who think any letter from someone famous is more important than a good letter from someone not famous, and 2) those who think a really good letter from anyone is better than a bad one from someone famous
 - ◆ Part of the problem is that committees will likely be made of a mix of people who fall into both camps!
 - ◆ **Strategy:** do a little of both, have a **pool** of letter writers (>3) if you can, that you can swap around depending on the job
 - ◆ Or in your cover letter, you can say “here are my 3 references” and list them, then say “for additional references, you could contact”... and list a couple others. But no more than 4-5 total (for PD/faculty), and really only do this if you have good reason.

WRITING A GOOD APPLICATION

- You really want to know what kind of letters you are getting!
 - ◆ There are some tricks. Never ask by email if possible, ask: “Would you feel comfortable writing me a strong/good letter of recommendation”? This is different than asking “Can you write me a letter?” Watch the reaction carefully!
 - ◆ With people you know well, try to ensure they tailor the letters. I have seen countless letters with “To whom it may concern” and “I’m sure they’ll do great at your university”. I tend to weight those lower.
 - ◆ Even if you have three famous people whom you kind of know, make sure one of your letters is from someone who really knows you and your work personally
 - ◆ Foreign letters tend to be more understated, which in the US might be interpreted as a weak letter. And US letters often seem over the top outside the US! Coach your writers accordingly.

WRITING A GOOD APPLICATION

- **Make sure you know where you stand with your current advisor since their letter will count the most!**
 - ◆ They should be willing to have a very frank discussion about how you are doing, and your career prospects. If you are not sure where you stand, you should sit down and ask, *well before the deadlines!!*
 - ◆ It is *your* responsibility to pursue this talk! They probably will not volunteer it, especially if it's bad news, but it is far better for you to know than not.
 - ◆ Also provides an opportunity for you to fix a problem that may stand between you and a good letter, like finishing a paper or something that your advisor/boss is cranky about, but that is also why you shouldn't do this last minute.
 - ◆ My advice: pursue this talk a year before you plan to apply for a new job!!

WRITING A GOOD APPLICATION

- Other good points that came up from prior discussions:
 - ❖ Famous people are often asked by many people for letters, and if they write letters for more than one candidate for the same job, it is **very common** for them to compare the candidates! Thus you should know who your competition are and don't ask for a letter for that position/fellowship unless you're pretty sure you won't be the one he/she says is not as good as the others...
 - ❖ Important ways to “groom” future letter writers: grab people at conferences to see your poster, ask them about their paper or show them yours and have some (good) questions for them, contact people via email to ask a (good) question about their research. People admire initiative from young scientists, as long as it's not pestering and there are logical reasons to be contacted.
 - ❖ Don't be shy about asking for letters, that's your advisor/boss's job, and someone wrote them good letters once or they wouldn't have that job! *But it is your responsibility to do so with enough time (at least a few weeks warning is ideal, two weeks is already pushing it)!!!*

WRITING A GOOD APPLICATION (PD)

● Research statement

- ◆ Follow application instructions very carefully, when in doubt, shorter (~1-2 pages max) is better
- ◆ **Tailor it!** (at least for the jobs you really want!) Emphasize aspects of your work that *fit* the job you're applying for. Mention specific people/projects/names @ the institute, and sound like you mean it!
- ◆ Why? It shows that you've done your homework. Many people don't bother, so it will make yours stand out in the pile
- ◆ A nice figure says 1000 words. Make very nice, clear, easy to parse, colorful figures. And then say less.
- ◆ Show awareness of the type of position it is. I got some PD applications last year *telling* me what they were going to do while I paid them! That would be appropriate for a fellowship. But if it's not a fellowship then make clear you understand that you will be working with the group on their science for the majority of your time, and show interest in that science!

WRITING A GOOD APPLICATION (PERMANENT/FACULTY)

- **Research statement:** These are much more critical than for PDs, follow those guidelines for PDs in general but also:
 - ◆ Try to stay within ~4 pages with figures and references, and have really clear layout with beautiful figures that speak to non-experts
 - ◆ You want to clearly lay out your expertise, your standout successes and your future research direction, showing clear leadership
 - ◆ **Tailor it!** In this case you want to make sure that what you are saying will appeal to the place that is hiring
 - ◆ Do not try to go into great detail, think of it as an abstract of your research to advertise your vision, with a goal of getting them to invite you to an interview

WRITING A GOOD APPLICATION

- Cover letter (mostly relevant for jobs with individuals)
 - ◆ Opinions vary, but why risk it? It's the first impression so put some minimal effort in.
 - ◆ Make sure it's tailored to the right person at the right institute! And do not write "Dear Sir(s)". Unless you want to piss off any woman that might otherwise have hired you...
 - ◆ Explain **very briefly** who you are, what your background/interests are, and why you are applying for this particular job. *Most important: make clear how your interests overlap with those of the person or institute advertising the job!*
 - ◆ Put more effort in if it is not obvious why you fit the job
 - ◆ Usually you also put the names/contact info of your letters of rec
 - ◆ Sound enthusiastic, but not brown-nosey!

REMINDER: TAKE ACTION THIS ADVANCE WITH A GRAIN OF SALT!

● For every top scientists, there are three positions! See 2013's FB Astronomers group thread over what to do/not do on CVs:

Bryan Gaensler
When I sit on astro job panels, I see many CVs in which applicants list all the fellowships and faculty positions that they've previously been offered but declined. See [**Michael Nowak** Really? Titles of grants, I understand. Subdividing the list into PI vs. Col. sure. But do places really count the \\$\\$\\$? That's sad, if they do. And if one is just a Col, then what? Would the grant still list have happened without? Sometimes no, sometimes yes. Should that alter how one lists the money? Call me old fashioned, but I'd rather see just the grant titles, and the resulting papers, on the CV. But maybe that's why I've never had a tenure track job?!

Carles Badenes Any top-ranked research university will care about grant money. This is what makes or breaks assistant professors: the university simply cannot afford to keep you on staff unless you bring in grant money to cover your summer salary and fund postdocs and PhD students. I assume search committees take a proven record of successful funding very seriously. I know I would.

Michael Nowak I totally get and understand the whole grant money thing is important - I have been doing this 20 years! But actually list \\$ amounts on a CV? It will seem gauche. Grants, yes, no. I've never seen it on a CV for tenured faculty, and it seems like I've been seeing this on grad student and postdoc CVs for only ~10 years.

Michael Nowak I don't see the point of listing the amount of the declined positions on your CV. :-\)

Bras for concern about how a selection committee might view which fellowship you hold, that should be a factor in your considerations if you have to choose between jobs. The job you accept is your choice through which you advertise what you have to offer.

After all, if a committee favors holders of the X Fellowship over the Y Fellowship, then listing that you declined the X Fellowship might be interpreted as bad judgement on your part!

Kevin Heng Listing declined fellowships/positions is definitely in bad taste, especially if one is applying to continental Europe. Your actual achievements \(e.g. papers\) should speak for themselves.

Gianni Bernardi H Bryan, I never listed rejected fellowships although multiple sources told me that I should because it's common practice... I wouldn't particularly care to do either way but this would be a good chance to know if there is a common practice - although it seems that there isn't... I don't think my CV would change that much anyway, because I imagine that my qualities should emerge more from what I did rather than what I did not -\)

Kai Noeske "I am with you, but over the years could have gone out with..."

Hiranya Peiris Interesting discussion. I list a couple of declined fellowships on my CV, primarily because I was proud of having been offered them 0, think Bryan, your google search demonstrates that listing a declined Hubble certainly hasn't hurt those people. It seems a generational thing as to whether to list declined fellowships \(a lot of my peers do\). I'd certainly never look down my nose at a candidate who listed a declined Hubble on their CV! I would never list a declined job \(though I want to know if the senior people who commented above are also against the rumour mill!\). I listed \\$3 amounts on papers for faculty apps \(not for postdocs\) because it was often explicitly requested that applicants should demonstrate the ability to bring in research funds.

Dennis Zartick The principal reason for listing items on your CV is to demonstrate some set of experiences, accomplishments, achievements that testify to your qualifications for the job you are seeking. A long list of positions/fellowships that you have been offered doesn't provide that, but a list of grants with amounts can attest to how you have managed to obtain and manage funding. On the other hand, I don't find anything particularly annoying on a CV - rather I simply consider it information that I may or may not use in reaching a decision.

Megan Donahue I can report from actual faculty hiring committees that these "declined" listings, if noticed at all, are often the least interesting or most invidious, at best mildly annoying - it doesn't change the discussion, just favors it. The prize committees themselves are not amused.

Anna Watsis I would definitely want to see grants \(and the amounts are useful if you're trying to assess the scale of international grants since the panel may not always be familiar with the system - alternatively, explain that it supports e.g. one postdoc, 2 students\). Declined fellowships no, better to get one of your reference letter writers to mention "Hey, X was so awesome that they got offered 25 top notch fellowships in 2005". Papers in prep. should not be listed unless you are a PhD student - otherwise it just looks desperate.

Sera Markoff Just to add my 2c's, I definitely want to see grant amounts, since being able to pull in larger grants is part of our tenure process and thus it helps us to see how a candidate has done so far. I haven't seen many CVs with people listing declined fellowships, but if they are big name fellowships I guess I would find that useful info. Minor fellowships and jobs, I would find very weird \(and honestly, I've never seen it so far\). What I have seen sometimes and do find really stupid is people who list declined invited talks!

Michael Merrifield I'd guess "not relevant."

Michael Nowak Well, clearly I am outvoted on the \\$ question. Although with various different institutions having odd rules about who can and can't be a PI, I think it's a complicated issue best left for an interview, but not a CV. But again, I cede to the community. However, the few comments that said you'd find the lack of \\$ suspicious, really? Having information available and finding it useful, OK, but inventing suspicions? That just seems silly.

Jorge Moreno I can't entirely wrap my head around Sera's last comment. I recently organized a conference and the list of invited speakers included a junior \(pre-tenure\) female astronomer from the US. The SOC and I all agreed that she is truly a top scientist, a rising star in our field, and we were all very excited to invite her. Sadly, she had to decline because she was in the final months of her pregnancy, which made it very difficult for her to cross the ocean and come to the meeting. I personally would not mind if she lists this invitation in her CV \(as "declined"\). Getting invitations to speak at meetings early on in one's career is a big deal, and she should get recognition for that accomplishment!

Hiranya Peiris This has been a real eye-opener on how many personal judgements we bring with us when sitting on selection committees, and how we are unconsciously convinced that our judgements are right ones. I will certainly be more self-aware about these issues when I next sit on a panel.

Stephen Holland I disagree about not listing papers in prep. I do not mind seeing them on an application as long as there are only one or two significant ones listed. Papers in prep give a good sense of what the applicant is actually doing, as opposed to what this person is thinking about doing. Statements of proposed research can easily be exaggerated, and I know of cases where someone was hired and went off to do very different work than what they said they were going to do.

Philip Massey One thing that is kind of curious in some of these comments is the suggestion of how faculty "should" look at applications. I'm sorry, but with 50 or 100 applications, the reality is that many of them are going to be rejected for what may seem to be arbitrary reasons. The same thing happens in all vastly over-subscribed situations. So, yeah, if a person boasts about other positions they've turned down, or mistakes "no prep" for actual publications, or doesn't write a very well thought out cover letter that is specific to the institution, chances are I'm going to wind up on the floor pretty fast. What else would you expect?

Simona Vegetti I think the real problem here is that as young people in the field, looking for a job, we have more and more the feeling that the job market is a totally random variable and therefore we may end up putting on our CV what ever we think may attract the attention of the hiring committee ...

Simona Vegetti when you are a faculty and have a permanent job is kind of easy to say that you got annoyed by this and that on people's CVs and applications ... but maybe instead of being annoyed you should stop and think a while \(especially these days under the current economic times\) ... after all we are all just trying to survive ... and for the record I am not someone that would list not accepted jobs on my CV, but I can see why certain people would do it

Stephen Holland It is very easy to get on one's high horse about what people put in their their applications when you are sitting on a hiring committee. However, the reality is that when you are evaluating applications you are making decisions that have very significant effects on people's lives. Blowing off an applicant because you do not like a particular phrase that they used in their cover letter \(I have seen that happen\) or because they did not provide exactly the information that you expected them to provide \(but did not request in the job posting\), I am sure this happens too! I suggests that you should not be on a hiring committee. At the very least hiring committees should be honest when they tell people why they were not hired, so that that person can reason from the presence or absence of individuals a CV. That means a committee also shouldn't hold that candidate if they list declined fellowships, but it isn't something I would do. It certainly seems defensive.

Iain Neill Rejd Declined fellowships irritate and are verified, grants are tangible. List accomplishments, possibilities.

Harry Ferguson I'm thinking listings of others; that were declined is likely to do more harm than go on one's CV either. It's best year your salary as an "award won" on your CV either.

Markedeck -Mark Mac Low Frankly, awards like "best PhD thesis" counted for very little indeed in any hiring decisions I've been involved in. Research area and proposal, letters and publications \(in which I personally do include submitted, but not in prep\) get the interview \(or the postdoc offer\), and clear, compelling, take and conversations close the deal for tenure-track jobs.](http://www.google.com/search?as_sq=hubble+ fellowship+declined&as_fitletye=pdf for a random sampling.</p><p>I'm interested to hear the thoughts of those who do this, and of those who sit on selection committees, of the pros and cons of providing this info in your CV.</p><p>(This stems from a discussion on this topic at this week's excellent early-career mentoring workshop held in Australia.)</p><p>– Google Search
www.google.com</p><p>Like · Comment · Unfollow Post · Share · June 2 at 1:02am via mobile</p><p>5 people like this.</p><p>View previous comments 50 of 64</p><p>Michael Nowak What about listing 5 amounts of grants won? I always thought that was tacky, especially if you start doing it for Col grants as well.</p><p>Joseph Barranco Michael, actually, the hiring committee I was on looked very favorably on grant $ amounts. It absolutely was not seen as tacky.</p><p>Reba Bandyopadhyay Yes, the grant amount things seem to be relevant for a CV in many cases, especially when the job advert has language about)

● This emphasizes why it is so critical to start early. Your advisor/boss will likely want to generate you, but also you should all have enough time to "a few more senior folks and see how they feel about your entire research application package.

INTERVIEWS

- Many PD and all permanent positions require a video or in person interview
 - ◆ Requires its own talk so this is just a basic summary, because an interview can involve a research talk as well as discussions
 - ◆ Dress code: casual/business, a full suit and tie is generally overkill for sloppy astro folk. Show that you put in some effort but you don't need to go overboard.
 - ◆ Obviously give a good, relevant talk and practice
 - ◆ Know all the people you will speak to and what they do, so you have something to say that demonstrates your knowing this!
 - ◆ Be able to clearly say what you would do at the institute you're applying for, what attracts you to the position/group, what your vision is for yourself in the future. These are standard questions. Show awareness of the position and place!

NEGOTIATION (PD)

- ☼ Once you get an offer, you can often negotiate a few things
 - ❖ What sort of facilities/computer you get on startup
 - ❖ For a job off someone's grant, you need to discuss the percentage time for your own work, travel money, and in some cases salary (US does not have fixed scales for non-governmental jobs!!)
 - ❖ If you have multiple offers, it's ok to tell people that you need time to decide etc...up until Feb 15 is "acceptable" by the honor code for US postdocs, so if they try to pressure you that's not a good sign about them. This is trickier for PhD positions as there's no standard rule.
 - ❖ Sometimes it can pay to tell someone their job is your top choice, but you have to use your judgement...base it on rapport
 - ❖ Never be unpleasant/arrogant. Treat everyone as a potential future colleague...how do you want them to see you? So be honest and respectful. Even if you turn them down. They could be on a panel next time you apply for funding!

NEGOTIATION (PERMANENT)

- ☼ This is very country dependent, the key is to talk to people and get advice ahead of time of what is considered acceptable at a given institute
- ❖ For instance in the US salary is extremely negotiable, two people coming into the same level may not get the same deal! Summer salary is not included but startup packages tend to be much higher than EU
- ❖ In the EU, salaries/benefits are usually non-negotiable, but other things like startup are, and summer salary is included
- ❖ Be very aware of what the rules are for getting tenure/permanency and try to negotiate with that in mind. I.e., at UvA we want to see successful PhD supervision and getting grants. We usually give incoming faculty a PhD at the start to give them some of that experience while they work to build up a group.

FEEDBACK

- ✻ Finally: if you apply for a job/fellowship that you really wanted, and you didn't get it, it can be ok to ask for feedback on your application
 - ❖ I would only do this if you know you were on the shortlist, since otherwise they may not have paid as much attention to your individual application
 - ❖ You can politely ask “if you feel comfortable, I would really appreciate some feedback on my application to help improve my chances for other positions” etc. You may not get anything back, but often you do, and it doesn't hurt to ask.
 - ❖ In the rare case where you know someone on the committee, you can sometimes find out more sensitive things like, did your letter writers write letters as good as you thought they would? Sadly, this often turns out to be an issue, which is why I stress being very thoughtful about your letters.

TIP FOR MODERN TIMES

- ✻ Google yourself. Seriously. Because we (the people you applied to) definitely will!!
- ✻ Hide your weird issues and fetishes behind the privacy settings of things like Facebook, Twitter, Google+ whatever. Sometimes it really is too much info, and can seriously hurt your application!
- ✻ EVERYONE knows each other (1 degree of separation), EVERYONE talks, so behave well at all (professional) times!!
- ✻ Learn some etiquette! I get the sense that because of social media, the younger generation thinks we are all friends. We are not your friends!! We are your potential bosses, and we are generally not impressed by over-casual and over-personal emails. Stay professional unless you really know the person (and even then, there's a certain formality about job applications).

THE RUMOR PAGE

- ✻ In Astro, there's a very useful "astro job rumors wiki"!
- ✻ <http://www.astrobetter.com/wiki/tiki-index.php?page=Rumor+Mill>

POTENTIAL CAREER PITFALLS

- ★ To put some things out there for the discussion, I wanted to also list what I see as dangerous patterns/pitfalls to be aware of:
 - 👉 Procrastination and time management in general: not planning well, overbooking, doing busy work but not real work (advice: take a course/coaching!!!)
 - 👉 Lack of self-awareness, or not doing anything about it when you know you have weak points (again: coaching, trainings are very helpful!!)
 - 👉 Avoiding talks/networking from fear of public speaking and shyness
 - 👉 Avoiding risks (scientific or otherwise)
 - 👉 Too much being a team player, support role

HELP ME IMPROVE THIS!!

- ✻ If you have any tips, or feel there were omissions, or would have liked to hear more about something else, etc, please let me know! This version includes many changes/additions from input received in prior years.

OUTLINE

- ✻ Some initial thoughts on the whole process
- ✻ Strategy/resources*
- ✻ Different kinds of positions and other general advice for job hunting strategy*
- ✻ How to write a good application & deal with letters of recommendation
- ✻ **DISCUSS!**

*including stuff for online perusal later