# How 2 Apply 4 Stuff (PhDs/PDs): 2014

(\*IN MY HUMBLE AND TOTALLY BIASED OPINION, WITH GOAL BEING GETTING A FACULTY JOB AT A TOP RESEARCH INSTITUTE)

Note: these slides will be posted later under "Teaching" on my website

#### 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**

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#### WHY GIVE A TALK LIKE THIS?

- If you have love what you do, are working in an active/
  interesting field, have good letters, (for PhDs) have a good
  number of publications for your field, getting a PhD or 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 one of the rare geniuses out there, or you get lucky and discover something amazing, in which case you can 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! Even if you are just a first year MSc student, you will likely be applying for PhD positions in the next 6 months!
  - There's also 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!!

#### WHY GIVE A TALK LIKE THIS?

- interesting field, have good letters, (for PhDs) have a good number of publications for your field, getting a PhD or Postdoc position is likely not going to be a problem
- If you are serious about pursuing academia, now is already the d discover something academia, now is an enow or something academia, now is a MSc student!

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#### 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 | gəmp 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.

Dutch/yiddish translation = gogme? a bit more spirited than 'initiatief'

#### 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 self-awareness/self-critiquing
  - Absolutely do NOT rule out jobs based on location
  - Start preparing your application at least a month before your first deadline (I recommend 2 months)!

#### SOME 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 who 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" (permanent position)

#### INITIAL THOUGHTS II:

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

#### \* EU/world mobility is really changing things!

- You can no longer count on easily finding a PhD/PD in your home country, because it's increasingly more common to move
  more competition = tougher job market (and the economy isn't helping things right now)
- Consider *all* the options, do NOT limit yourself to one country, and if you must, be aware that this may harm your chances for finding a permanent position in academia
- \*\* If you want to get a permanent job in EU/Asia, usually you need to show international experience!
  - 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

#### MORE INITIAL THOUGHTS

- \* 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 really 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 academic career. I can think of at least three:
  - 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

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

- Committees hiring for faculty positions want to see: brilliant science, independent and creative thinking, initiative, leadership, ability to get funding, and of course a good fit to their program. Also a good fit to the institute "personality"!
- These things take time to develop. You can strategize as early as possible in your research career to build your CV accordingly! Even as a BSc/MSc student!

### 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 work on 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.
- 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: Even as a student you can win smaller competitive grants like scholarships, travel funds, summer school grants...

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

- But don't trust me! A foolproof way is to look at the CVs of people who have jobs you want. 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, many 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 2015, this autumn is when you should begin seriously applying, up to ONE YEAR in advance!!
- \* Although throughout the EU you will find a more flexible schedule, increasingly more institutes are starting to organize US-style application deadlines with interview days for multiple candidates (we started this ourselves two years ago for GRAPPA and API)
- \* Example: about 72 postings on AAS job register for PhDs/PDs in September 2013, many of which were top fellowships, compared to only 26 this month!!

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## 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
     \*Note: may be field dependent!

## DIFFERENT KINDS OF POSITIONS (PHD)

- In the EU, PhD fellowships less common than in the US but there are still several, and the "model" is growing here
- Generally less of a range in PhD positions though:
  - EU/national fellowships: EU (Marie Curie ITNs), NOVA/FOM (NL), STFC (UK), DAAD (DE), NASA/NSF (US)
  - Named Fellowships (institute specific) -- becoming more common in EU/NL (example: NWO Graduate Schools like GRAPPA)
  - Working for someone or a collaboration, paid off their project/ experiment's grant

#### FINDING PHD/PD POSITIONS

- Where to look? Depends on your field, but here are a few suggestions:
  - AAS job register (<a href="http://jobregister.aas.org">http://jobregister.aas.org</a>), for all astronomy-related positions, from PhD to Faculty
  - EU EURAXESS "mobility portal" (<a href="http://ec.europa.eu/euraxess/index.cfm/jobs/index">http://ec.europa.eu/euraxess/index.cfm/jobs/index</a>)
  - 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 PHD/PD POSITIONS

- New: be very cautious about 'spamming' potential hirers with your CVs!
  - I increasingly receive unsolicited emails from people asking if I have a position and sending me their application/CV
  - If the email is sent from a nonprofessional (gmail/hotmail etc) account and is clearly mass-market ("Dear Professor"), I tend to ignore it
  - If the email is sent from an individual who clearly is interested in my group, I am polite and write back, usually just to say "if I have something, it will be advertised, please apply then"
  - Sometimes (also increasingly more) I get very strange, lengthy and over-personal emails back. These will \*never\* be received well, so I recommend you remain succinct, professional and polite in your responses, and listen to what is being told to you!!

## FINDING NON-ACADEMIC POSITIONS

- This relates more to tomorrow's program, but this is a really nice site for Astronomers (and probably physicists too!) looking for nonacademic jobs:
  - http://www.jobsforastronomers.com/
- There's also a LinkedIn group for "Astronomers Beyond Academia: <a href="http://linkd.in/Uzn7wL">http://linkd.in/Uzn7wL</a>
- Assumedly there must be similar social media sites for physics!

#### APPLYING FOR PD FELLOWSHIPS

#### \*\* New!: added after discussion today (2014)!

- Note: to apply for named PD (and sometimes now PhD) fellowships it is NOT the idea that you have entirely new, independent ideas all on your own yet! No one expects that.
- What is critical is that you identify the person who will be your host at the institute where you want to take the fellowship (ideally 6+ months ahead of the deadline), most fellowships require a host or someone to nominate you anyway. And it's important for your career development to be associated with/embedded in a group even if you are something of a free agent.
- 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!

- \*\* First type: non-institute specific (many but not all!!), not in any particular order:
  - \* EU Marie Curie Individual fellowships (all fields -- <a href="http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-msca-if-2014.html">http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-msca-if-2014.html</a> -- due <a href="http://ec.europa.eu/">http://ec.europa.eu/</a> 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 -- <a href="https://www.eso.org/sci/activities/">https://www.eso.org/sci/activities/</a> FeSt-overview/ESOfellowship.html -- 15/10/14)
  - \* Humboldt (Germany -- any field, <a href="http://www.humboldt-foundation.de/web/sponsorship.html">http://www.humboldt-foundation.de/web/sponsorship.html</a>, multiple deadlines per year)
  - \* STFC (UK++ -- anything -- <a href="http://www.stfc.ac.uk/566.aspx--various">http://www.stfc.ac.uk/566.aspx--various</a>)

- \*\* More non-institute specific, not in any order, including US-specific ones:
  - \* NWO Veni (NL -- anything -- <a href="http://www.nwo.nl/en/funding/our-funding-instruments/">http://www.nwo.nl/en/funding/our-funding-instruments/</a> nwo/innovational-research-incentives-scheme/veni/index.html -- <a href="January 2015">January 2015</a>) \*\* 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)

  - \* Carl Sagan (exoplanets -- <a href="http://nexsci.caltech.edu/sagan/fellowship.shtml">http://nexsci.caltech.edu/sagan/fellowship.shtml</a> -- ~1/11/14)
  - \* NSF (need to be US citizen/resident--anything -- <a href="http://nsf.gov/funding/pgm\_summ.jsp?">http://nsf.gov/funding/pgm\_summ.jsp?</a>
    <a href="ppims\_id=5291&org=AST&sel\_org=AST&from=fund">pims\_id=5291&org=AST&sel\_org=AST&from=fund</a> -- 8/10/14)
  - Jansky (radio, theory, some are NRAO specific -- <a href="http://www.nrao.edu/administration/directors">http://www.nrao.edu/administration/directors</a> office/jansky-postdocs.shtml -- ~15/11/14)

## \*\* 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

- \* Second type: institute specific (just some examples!)
  - \* Miller Fellowships (UC Berkeley -- anything -- <a href="http://millerinstitute.berkeley.edu/page.php?">http://millerinstitute.berkeley.edu/page.php?</a>
    <a href="mailto:nave11">nave11</a> two stage: nomination!! 10/9/14, proposal 10/10/14)
  - \* CfA Multiple Fellowships (CfA -- astro/theory -- <a href="http://www.cfa.harvard.edu/opportunities/">http://www.cfa.harvard.edu/opportunities/</a> <a href="postdocs.html">postdocs.html</a> -- <a href="http://www.cfa.harvard.edu/opportunities/">various Oct/Nov 2014</a>)
  - \* Pappalardo Fellowship (MIT-- physics -- <a href="http://web.mit.edu/physics/research/pappalardo/">http://web.mit.edu/physics/research/pappalardo/</a> index.html-- must be nominated by Sept 2014)
  - CITA Fellowships (Canada-CITA--theoretical astro, multiple fellowships -- <a href="http://www.cita.utoronto.ca/opportunities/post-docs/">http://www.cita.utoronto.ca/opportunities/post-docs/</a> -- <a href="Fall 2014">Fall 2014</a>)
  - 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 -- <a href="http://nasa.orau.org/postdoc/application/index.htm">http://nasa.orau.org/postdoc/application/index.htm</a> -- 3x/year, nxt 1/11/14, 1/3/15, 1/7/15) but note that they have significant cut the number of foreign nationals allowed!
  - \* Max Planck Institutes (Germany -- anything -- <a href="http://www.mpg.de/career\_programs---varies">http://www.mpg.de/career\_programs -- varies</a>)
  - \* 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 <a href="http://naoj-global.mtk.nao.ac.jp/EACOA-E/fellowship/index.html">http://naoj-global.mtk.nao.ac.jp/EACOA-E/fellowship/index.html</a>

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) <a href="http://www.asiaa.sinica.edu.tw/">http://www.asiaa.sinica.edu.tw/</a>

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) <a href="http://www.pmo.cas.cn/">http://www.pmo.cas.cn/</a>

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

## 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

- \*\* These are much rarer in Europe, outside EU Marie Curie funded positions, there used to be NWO Top Talent, I'm probably missing stuff...
  - \* NOVA (Astronomy Starting 2 yrs ago, positions advertised together per institute, see AAS for that call and individual remaining positions)
  - \* DAAD (Germany's Academic exchange program) (Germany -- all fields -- <a href="https://www.daad.de/deutschland/en/">https://www.daad.de/deutschland/en/</a> -- <a href="https://www.daad.de/deutschland/en/">various</a>)
  - \* ESO PhD student fellowships (Garching or Chile -- IR/opt astro -- http://www.eso.org/sci/activities/FeSt-overview.html -- various)
  - \* NWO graduate schools: These are starting to pop up in the NL in various fields, keep your eye out, they are usually competitive fellowships linked to MSc programs, often within "zwaartepunten" and interdisciplinary initiatives.
  - \* Other initiatives like the Delta Institute for Theoretical Physics <a href="http://www.d-itp.nl/about/vacancies-d-itp/vacancies.html">http://www.d-itp.nl/about/vacancies-d-itp/vacancies.html</a>

## 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

#### STRATEGY AGAIN... (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 that experience on your CV!

#### 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 in the US, 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 people get 5 minute talks or posters, but PhD students who are graduating can get 15 minute thesis talks! Audience sizes can be 200+depending on your luck, with lots of well known folk.
  - \* 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.
  - \* If you do go, you should arrange your US lecture tour after since you have spent the money to get that far!!! (All of the above likely applies to APS or equivalents in other subdiscliplines)

#### OTHER GENERAL ADVICE

#### \* 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 MSc/PhD!! MSc is basic training and I strongly believe you can switch between subtopics in Physics at this stage (but it will take some extra work!) 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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- 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
  - Research Statement (or essay, for fellowships)
  - 2-3 letters of reference (depends on level)
- General tone should be "confident yet reasonable": don't brag, but don't underplay your talents either

- 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!

## (THIS WILL BE COVERED LATER)

#### CV general structure

- ◆ Basic info: Name, current position and contact info, citizenship
   (DoB and marital status 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 Scienciae (equiv. to Bachelors Degree)"
- ◆ List PhD thesis title and advisor
- ◆ List all awards/major grants
- ◆ List all research jobs/experience
- Good point from 2013 discussion: In US/UK, don't put a photo of yourself in your CV!
- ★ List recent invited talks/colloquia if you have any, schools etc. if you are MSc student
- ◆ 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, at least for US applications.

#### Research statement

- ✦ Follow application instructions very carefully, when in doubt, shorter (~1 page) 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!

• Personal statements: be sincere, not smarmy! I have seen some weird ones that really turned me off to the candidate, so use with caution. Generally, qualitative statements about your extreme enthusiasm since birth for [insert field] are going to count less than what is in your CV. Let your talents speak for themselves.

- Note: in some fields (e.g., theoretical physics) it is becoming more common to submit applications on a single website for several positions
- Obviously tailoring to individual jobs/ institutes in this context makes no sense, and will not be expected!

# RESOURCES FOR WRITING FELLOWSHIP APPLICATIONS

- Thanks to Selma de Mink (prior "graduate"!) for these tips:
  - ♦ Most universities also offer local courses or information about grant schemes, some of which can be quite useful (ask people who took them, though). UvA does increasingly more of this via the Knowledge Transfer Office (ground floor)
  - ♦ NWO offers courses on how to succeed in their programs (Veni/Vidi/Vici etc)
  - ◆ Search the web: "How to win a Hubble Fellowship" gives good tips that can be applied to other positions in general:

    <a href="http://www.stsci.edu/institute/smo/fellowships/hubble/how-to-win-hubble-fellowship">http://www.stsci.edu/institute/smo/fellowships/hubble/how-to-win-hubble-fellowship</a>

- Letters of reference/recommendation
  - ♦ This is probably one of the most 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.

- Some 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)!!!

- More on letters of reference/recommendation
  - ◆ You really want to know what kind of letters you are getting.
  - ◆ There are some tricks. First, when you ask, you put it in a polite way like "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!
  - ◆ Second, 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
  - ◆ EU 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 in the EU! Instruct your writers accordingly.

#### Even more on letters of reference/recommendation

- ♦ Your advisor or current boss should be prepared 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 ∂ea∂lines!!
- → 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 1.5 years before you graduate (for PhDs), or half way through your project (for Masters)

# REMINDER: TAKE ALL THIS ADVICE WITH A GRAIN OF SALT!

• For every two scientists, there are three opinions! Last year's FB Astronomers group thread over what to do/not do on CVs!



• This emphasizes yet again why you need to start early! Your advisor will likely want to iterate with you, but also you should allow enough time to "poll" a few more senior folk and see how they feel about your entire application package.

#### INTERVIEWS

- Increasingly more PhD/PD 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 physics 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 (mostly for PDs, some may hold true for PhD)
  - \* 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!

### **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+, Hyves, whatever. Sometimes it really is too much info, and can seriously hurt your application!
- New: 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
- I'm not sure if other fields have this...but if they don't, you should start one! Ours was started by postdocs fed up with the game-playing, and led in part to the agreed 15 Feb "unified" date for PDs

### 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 is the 7th time I've done this so any information/feedback helps! 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
- **\*\* Group discussion**

\*including stuff for online perusal later