



Career options in and out of astronomy

Linda Schmidtobreick
European Southern Observatory, Chile

La Silla Observing School, 12th February, 2026



So you want to be a professional astronomer...

- IAU includes 12,742 active members (including Junior Members) across 92 countries
- The market is changing, competition is high
- The number of students reaching PhD level is increasing, the number of permanent job offers is not.
- Chances to become a professional astronomer $< 10\%$

So you want to be a professional astronomer...

- IAU includes 12,742 active members (including Members) across 92 countries
- The market is changing, competition is
- The number of students reaching PhD, the number of permanent job offers is not.
- Chances to become a professional astronomer 0%



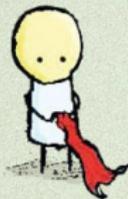
So you want to be a professional astronomer...

- IAU includes 12,742 active members (including Members) across 92 countries
- The market is changing, competition is
- The number of students reaching PhD, the number of permanent job offers is not.
- Chances to become a professional astronomer .0%



So, you have to be awesome!

STEPS TO BE AWESOME



get cape.



wear cape.



fly.

So you want to be a professional astronomer...

First: Get that PhD!

So you want to be a professional astronomer...



physics
astronomy
chemistry
mathematics
biology,...

First: Get that PhD!

So you want to be a professional astronomer...



physics
astronomy
chemistry
mathematics
biology,...

First: Get that PhD!

Do a postdoc!

So you want to be a professional astronomer...



physics
astronomy
chemistry
mathematics
biology,...

First: Get that PhD!

Do a postdoc! or two, or three,...

(consider fellowships, grants, keep track of constraints)

So you want to be a professional astronomer...



physics
astronomy
chemistry
mathematics
biology,...

First: Get that PhD!

Do a postdoc! or two, or three,...

(consider fellowships, grants, keep track of constraints)

Get a tenure!

So you want to be a professional astronomer...



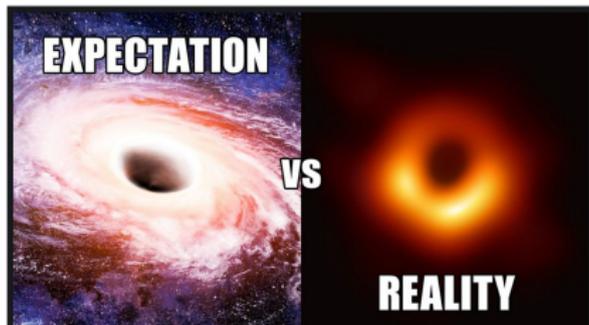
physics
astronomy
chemistry
mathematics
biology,...

First: Get that PhD!

Do a postdoc! or two, or three,...

(consider fellowships, grants, keep track of constraints)

Get a tenure!



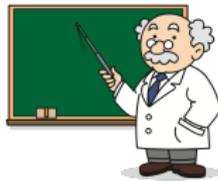
What kind of tenure astronomy jobs are there?

The classics:



Research Faculty:

Mainly research (> 50%)
some teaching
some other duties



Teaching:

mainly teaching (> 60%)
some research
some other duties



Observatory:

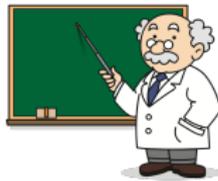
(70%-30%; 80%-20%; 50%-50%)

What kind of tenure astronomy jobs are there?

The classics:



Research Faculty:
Mainly research (> 50%)
some teaching
some other duties



Teaching:
mainly teaching (> 60%)
some research
some other duties



Observatory:
(70%-30%; 80%-20%; 50%-50%)

But also telescope operating, outreach, planetariums, public observatories, journalism, museums, science art,...

You have a PhD:

- data analysis, scientific computing
- image analysis, image processing
- numerical analysis, mathematical modeling
- problem solving
- project management
- people management
- finance/budget management
- communication skills (to technical and non-technical audience)
- team working
- international experience



aerospace firms



consulting
companies



planetariums and
science museums



teach in
secondary
schools



Computer
Science /
Software industry



Statistics



banking /
brokerage



Medical Imaging

So you still want to be a professional astronomer WHY?

If you are most concerned about money, and you are smart enough to get a PhD in astrophysics, then you are probably smart enough to get a job that will make more money than an astrophysics PhD.

Romeel Davé

So you still want to be a professional astronomer WHY?

- * You will spend most of your time working in front of a computer.

So you still want to be a professional astronomer WHY?

- * You will spend most of your time working in front of a computer.
- * You will not make as much money as your friends who are not as smart as you.

So you still want to be a professional astronomer WHY?

- * You will spend most of your time working in front of a computer.
- * You will not make as much money as your friends who are not as smart as you.
- * While there is a lot of flexibility, you will work significantly more hours than a normal person.

So you still want to be a professional astronomer WHY?

- * You will spend most of your time working in front of a computer.
- * You will not make as much money as your friends who are not as smart as you.
- * While there is a lot of flexibility, you will work significantly more hours than a normal person.
- * You will not be able to settle down in one location until at least your early thirties, if not much later.

So you still want to be a professional astronomer WHY?

- * You will spend most of your time working in front of a computer.
- * You will not make as much money as your friends who are not as smart as you.
- * While there is a lot of flexibility, you will work significantly more hours than a normal person.
- * You will not be able to settle down in one location until at least your early thirties, if not much later.
- * You will find that many of your cohort have pretty serious and interesting hobbies, ranging from radio DJ to competitive ballroom dance to extreme marathon runners.

So you still want to be a professional astronomer WHY?

- * You will spend most of your time working in front of a computer.
- * You will not make as much money as your friends who are not as smart as you.
- * While there is a lot of flexibility, you will work significantly more hours than a normal person.
- * You will not be able to settle down in one location until at least your early thirties, if not much later.
- * You will find that many of your cohort have pretty serious and interesting hobbies, ranging from radio DJ to competitive ballroom dance to extreme marathon runners.
- * You will find that your cohort is fairly progressive and left-leaning in their politics, but the field is startlingly devoid of diversity.

So you still want to be a professional astronomer WHY?

- * You will spend most of your time working in front of a computer.
- * You will not make as much money as your friends who are not as smart as you.
- * While there is a lot of flexibility, you will work significantly more hours than a normal person.
- * You will not be able to settle down in one location until at least your early thirties, if not much later.
- * You will find that many of your cohort have pretty serious and interesting hobbies, ranging from radio DJ to competitive ballroom dance to extreme marathon runners.
- * You will find that your cohort is fairly progressive and left-leaning in their politics, but the field is startlingly devoid of diversity.
- * You will discover that intelligence and hard work are necessary for success, but don't guarantee it.

So you still want to be a professional astronomer WHY?

- * You will spend most of your time working in front of a computer.
- * You will not make as much money as your friends who are not as smart as you.
- * While there is a lot of flexibility, you will work significantly more hours than a normal person.
- * You will not be able to settle down in one location until at least your early thirties, if not much later.
- * You will find that many of your cohort have pretty serious and interesting hobbies, ranging from radio DJ to competitive ballroom dance to extreme marathon runners.
- * You will find that your cohort is fairly progressive and left-leaning in their politics, but the field is startlingly devoid of diversity.
- * You will discover that intelligence and hard work are necessary for success, but don't guarantee it.
- * You will be promoted based on your research, but you will spend much of your time doing things you were not specifically trained to do, such as teaching, mentoring, management, and sitting on committees.

So you still want to be a professional astronomer WHY?

- * You will spend most of your time working in front of a computer.
- * You will not make as much money as your friends who are not as smart as you.
- * While there is a lot of flexibility, you will work significantly more hours than a normal person.
- * You will not be able to settle down in one location until at least your early thirties, if not much later.
- * You will find that many of your cohort have pretty serious and interesting hobbies, ranging from radio DJ to competitive ballroom dance to extreme marathon runners.
- * You will find that your cohort is fairly progressive and left-leaning in their politics, but the field is startlingly devoid of diversity.
- * You will discover that intelligence and hard work are necessary for success, but don't guarantee it.
- * You will be promoted based on your research, but you will spend much of your time doing things you were not specifically trained to do, such as teaching, mentoring, management, and sitting on committees.
- * You will learn to become an effective writer and public presenter.

So you still want to be a professional astronomer WHY?

- * You will spend most of your time working in front of a computer.
- * You will not make as much money as your friends who are not as smart as you.
- * While there is a lot of flexibility, you will work significantly more hours than a normal person.
- * You will not be able to settle down in one location until at least your early thirties, if not much later.
- * You will find that many of your cohort have pretty serious and interesting hobbies, ranging from radio DJ to competitive ballroom dance to extreme marathon runners.
- * You will find that your cohort is fairly progressive and left-leaning in their politics, but the field is startlingly devoid of diversity.
- * You will discover that intelligence and hard work are necessary for success, but don't guarantee it.
- * You will be promoted based on your research, but you will spend much of your time doing things you were not specifically trained to do, such as teaching, mentoring, management, and sitting on committees.
- * You will learn to become an effective writer and public presenter.
- * You will learn something new just about every day.

Opportunities @ ESO

ELT

Garching HQ

La Silla

VLT/VLTI

ALMA

Working at ESO: <https://recruitment.eso.org>

ESO-FELLOWSHIP

Deadline: Oct 15

ESO-STUDENTSHIP

Deadlines: Apr 20 & Oct 20

Early-Career Scientific Visitor Programme

in Chile or Garching

flexible deadline

Science Internship (Chile)

Deadline: usually in November

SciOps and Engineering Internships (Paranal)

Summer School (Garching)

Deadline: usually in February

Some internal funding possibilities

ESO Scientific Staff in Santiago/Chile

Talk to the people you want to work with!!!



ESO Fellowships

- 3 years (Garching) or 4 years (Chile)
- Independent research + get involved with ESO
- Competitive tax free salary + many benefits
- Ample travel money
- Training and supervision opportunities



A promoting video

A promotional poster for ESO Fellowships. At the top left is the ESO logo. The main title 'Reach New Heights' is in large, bold, white font. Below it, 'Fellowships in Germany or Chile' is written in a smaller white font. Further down, three lines of text in white read: 'Develop your scientific profile', 'Become an independent researcher', and 'Prepare for future responsibilities'. The background is a dark blue night sky over a landscape with a large, illuminated dome structure and other buildings. At the bottom left, there is a QR code and the URL 'eso.org/fellowship'.



ESO Studentships

eso.org/studentship

- 1-2 years of PhD @ ESO (Garching/Chile)
- Work on doctoral project / start new project
- Opportunities to shadow staff/fellows for observatory operations, outreach etc.
- Training and development opportunities
- Centre of European observational astronomy



<http://eso.org/public/videos/esocast149a/>

ESO

Road to the stars

A unique opportunity to conduct part of your PhD research at the European Southern Observatory

#ESOJOBS
eso.org/studentship

ESO Headquarters, Garching near Munich, Germany
ESO Viscara, Santiago, Chile

A promoting video

<https://aas.org/learn/careers-astronomy>

<http://astronomy.swin.edu.au/~dforbes/mercury.pdf>

<http://hosting.astro.cornell.edu/~brs/faq.html>

<https://www.eso.org/sci/activities/santiago/chilean.html>

<https://eas.unige.ch/jobs.jsp>

<https://jobregister.aas.org>

https://www.eso.org/sci/activities/fellowships-and-studentships/FeSt-overview/fellowship_programme.html

<http://www.stsci.edu/stsci-research/fellowships/nasa-hubble-fellowship-program>

<http://www.astronomische-gesellschaft.de/en/activities/jobregister>

<http://www.cadc-ccda.hia-ihp.nrc-cnrc.gc.ca/en/meetings/>

<http://erc.europa.eu/>