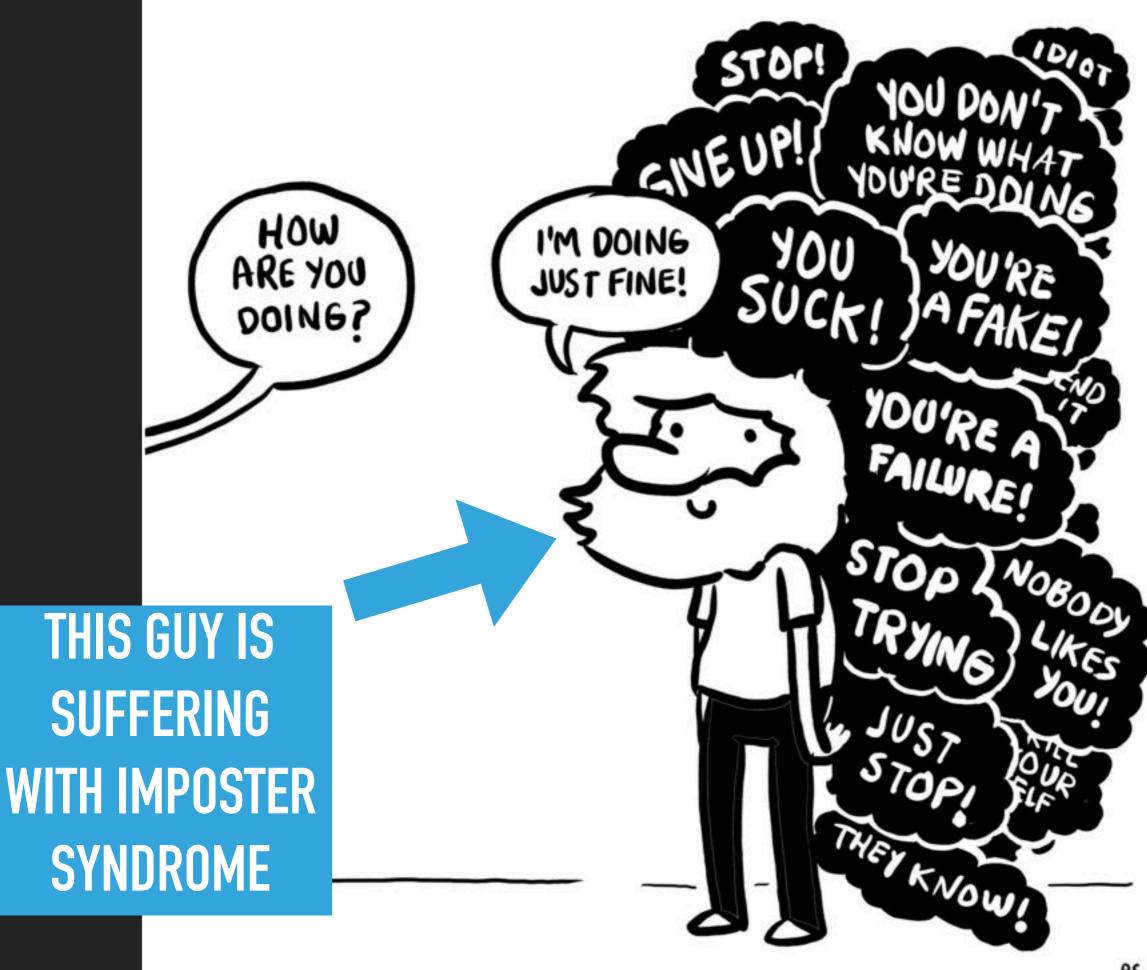
#### CONFIDENCE IN ACADEMIA

SAMCRHSS 2019

SOME TECHNICAL HOW BRAINS WORK

SOME LESS TECHNICAL STUFF ABOUT STUFF ABOUT HOW MY BRAIN WORKS



## IMPOSTER STATE PHENOMENON

"A collection of feelings of inadequacy that persist despite evident success"

People who suffer from imposter syndrome are convinced that they have fooled people into thinking that they are capable...

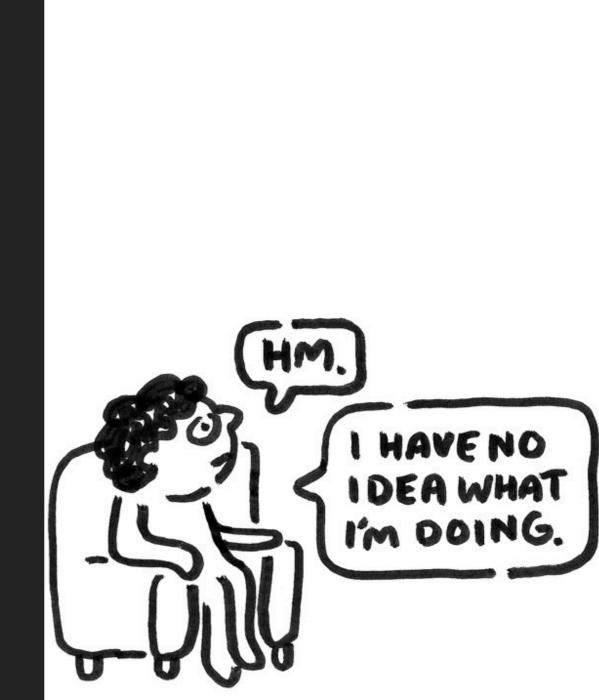
### ...they feel that their achievements are due to luck or external factors...

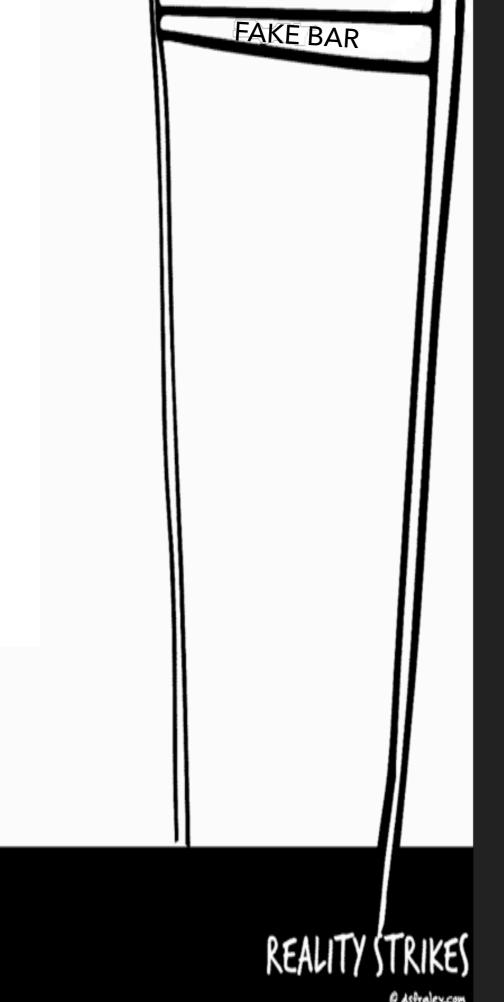
# ...and they have a fear that eventually someone will discover that they are imposters

- An estimated 70% of people will suffer with imposter syndrome at some point in their career
- It is particularly prevalent in academia
- Can be triggered by a new transitional experience such as a new job

#### COMMON THOUGHTS ASSOCIATED WITH IMPOSTER SYNDROME

- "It's all down to luck" "I feel like a fake"
- "I must not fail"
- "I don't know enough" "Success is no big deal"





It's hard to know what causes it...

...but people who suffer with imposter syndrome often have unrealistic notions of what it means to be competent - they set this internal bar exceedingly high

## 

### Two factors contribute:

the subject and the environment



#### Imposter syndrome is a response to stimuli

- it is situational



#### It is not a mental disorder or syndrome

#### UNDER-REPRESENTED GROUPS

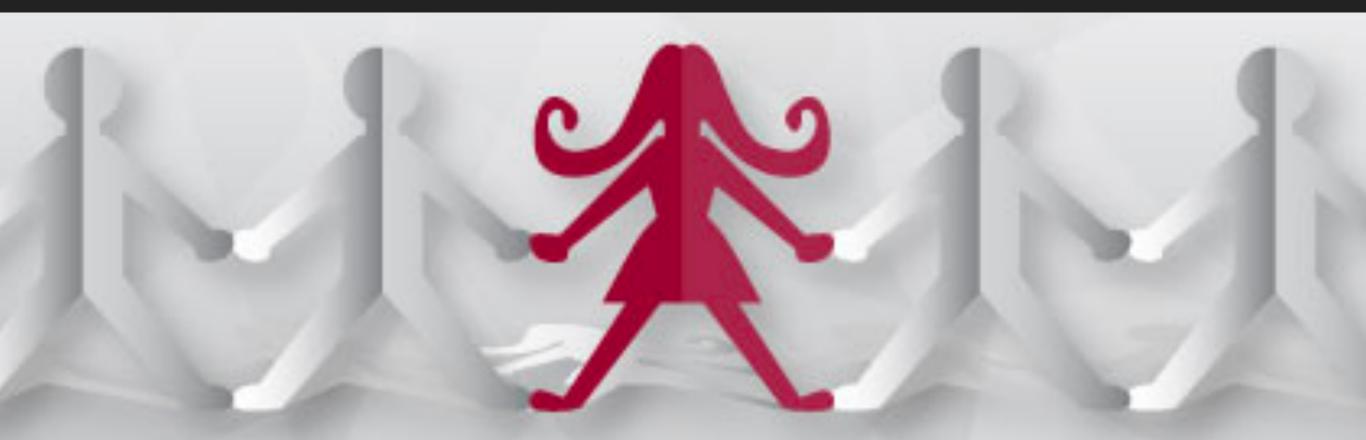
#### While anyone can experience imposter syndrome, it is more likely to be suffered by people from marginalised groups

#### UNDER-REPRESENTED GROUPS

**"PEOPLE WHO SUFFER INSTITUTIONALISED BIASES OFTEN REPORT LOWER SELF-CONFIDENCE - A CONSEQUENCE OF LIVING A WORLD WHERE YOUR EXISTENCE AND YOUR VOICE ARE CONSISTENTLY UNDERVALUED AND/OR WHERE YOU ARE MADE TO** FEEL UNWELCOME. AND SOMETIMES UNSAFE"

#### UNDER-REPRESENTED GROUPS

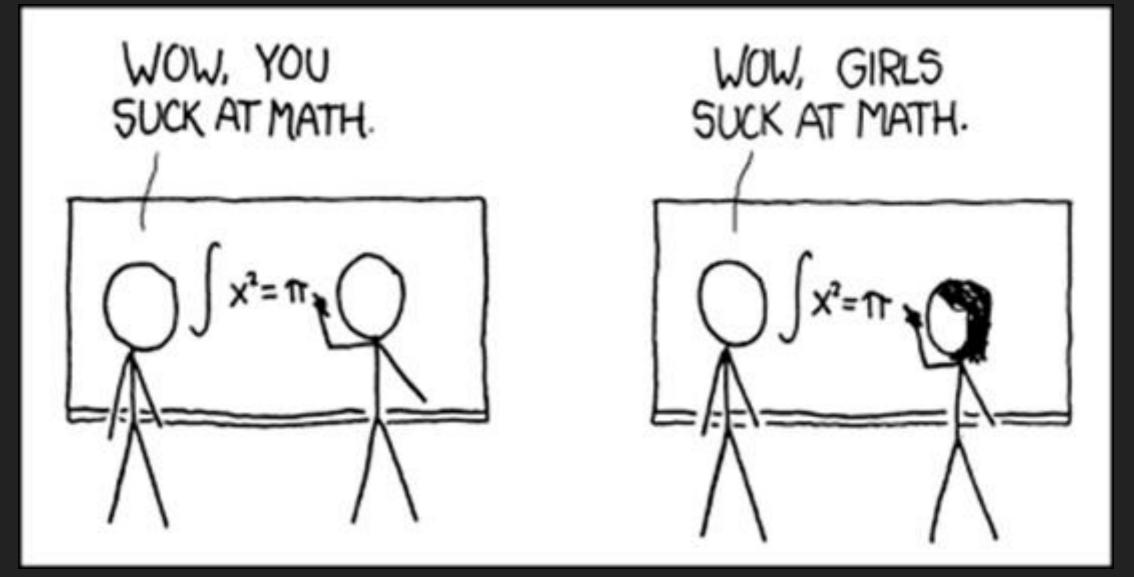
#### Feelings of belonging foster confidence



#### STEREOTYPE THREAT

Stereotype threat is the feeling of anxiety that you get when you are in a position to confirm a negative stereotype

#### STEREOTYPE THREAT



xkcd.com/385/

#### WHY IS IMPOSTER SYNDROME A PROBLEM?

#### "ALTHOUGH IMPOSTORISM IS ASSOCIATED WITH HIGH ABILITY AND PERFECTIONISM, THE CONSTANT SELF-DOUBT AND RESULTING EMOTIONAL EXHAUSTION IS IN NO WAY AN ASSET."

- David Walker in THE

#### WHY IS IT A PROBLEM?

- Imposter syndrome can stop you from experiencing joy in your accomplishments and achievements
- Imposter syndrome can prevent you from taking opportunities and make you retreat from your goals e.g.
  - \*\* not applying for jobs/grants
  - \* not submitting talks/papers
  - \* not advertising your own achievements
- Some people with imposter syndrome will push too hard and burn out

### A PERSONAL PERSPECTIVE

- Maths degree, now an astrophysicist
- Monte Carlo radiative transfer code
- Bayesian inference
- Supernova observations & data reduction

- Mentoring and mentoring schemes
- Welfare/equality & diversity committees and talks
- 1752 Group campaign to end sexual misconduct
- Outreach

### WHAT I'VE LEARNED . .

#### THE PEOPLE WHO SEEM TO SOUND MOST IMPRESSIVE OFTEN UNDERSTAND THE LEAST



### "the kinematically driven antineutrino barrage of magic"

- undefined terms

6x lnx + 3x + 2x 2Fx

 $\frac{\partial F_{\mathcal{Z}}}{\partial \mathcal{Z}} \left( \frac{\partial F_{\mathcal{Y}}}{\partial \mathcal{Z}} + \frac{\partial F_{\mathcal{Z}}}{\partial \mathcal{Z}} \right) \left( \left( 2x + 1 \right)^{-2} dx = \frac{1}{2} x \frac{\left( 2x + 4 \right)}{-1} \frac{2n^2 + 3n + 5}{6n^2 + 4n - 9} \right)$ cos 2 A + (Ax+B)=2 "When the QBF jumps over the LD" - undefined acronyms  $\int \frac{dx}{\cos^2 x} = \int \frac{1}{2}$ lim (2x2); ]2x+5yæ)i+(2  $lxdy = \int d\varphi \left[ (4 - 3^{3} \cos^{2} \varphi) r dr = 5 \right] = t g \frac{\pi}{4}$  $(B - 2A) - x; \qquad \int \int x^{4} dx = \frac{x^{5}}{5} \Big|_{\frac{2}{5}}^{2} \frac{x^{5}}{5} \Big|_{\frac{2}{5}}^{2} \frac{y^{5}}{5} \Big|_{\frac{2}{5}}^{2} \frac{y^{5}}{5}$  $-\cos^{2}\varphi$  =  $(6-2\cos^{2}\varphi)d\varphi = 128;$ dxdy-Scosy<sup>2</sup> cos 2ft+(fx+B)=2ft fx - B let me tell you how clever lam-S  $\lim_{x \to 1} (2x^2 - 3x + 4) - \lim_{x \to 1} (2x^2) - \lim_{x \to 1} (5x) = (3x + 1)^{-2} dx = \frac{1}{5} x \frac{(8x - 1)^{-2}}{1} dx = \frac$ 

F(t) = cos2 ti-3 sin 2ti+2 ctgt

#### EVERYBODY MAKES IT UP



#### THE PEOPLE YOU ADMIRE ARE PEOPLE TOO



#### **IT'S HARD TO BE VULNERABLE**





#### THE SYSTEM DOES NOT ENCOURAGE US TO BE OPEN





66 The exaggerated esteem in which my lifework is held makes me very ill at ease. I feel compelled to think of myself as an involuntary swindler. Albert Einstein

#### YOU ARE IN GOOD COMPANY

#### EVERYBODY FEELS LIKE AN IMPOSTER SOMETIMES



### WHAT CAN YOU DO?

#### HELP YOURSELF

- Recognise imposter feelings when they happen
- Things to remember:
  - it's normal not to know everything you will learn more as you progress
  - \* the people who got you here are incredibly competent - they did not make a mistake
  - # all of your achievements!
- Focus on the outcome not on your selfdoubt



#### HELP YOURSELF

- Take a risk what would you do if you weren't afraid?
- Write your story down try writing a recommendation for yourself
- Try mentoring
- Be kind to yourself we all make mistakes
- Seek support

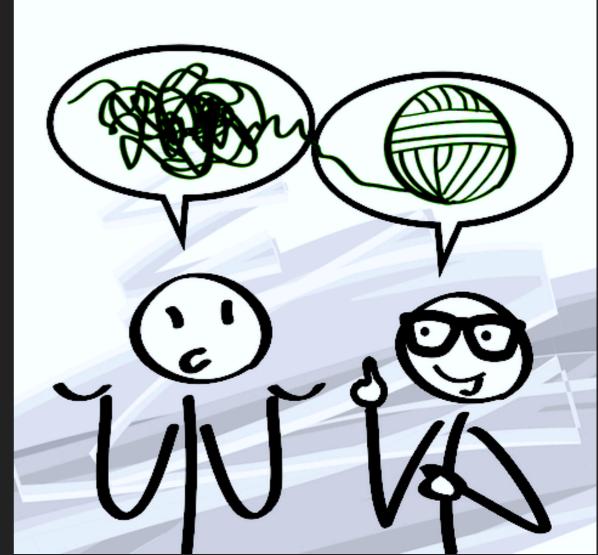


#### MANAGE YOUR ENVIRONMENT

- Acknowledge the ways your environment may have led to imposter syndrome:
  - In what situations do you feel most fake?
- Manage your environment to lessen impacts
  say no to things that aren't important
- Become part of the solution, not the problem
- Find mentors who believe in you

#### HELP OTHERS

- Remember that someone might be struggling even if you're not (and it can be anyone)
- Challenge negative self-talk with evidence
- Affirm, encourage and credit
- Normalise these feelings by being open
- Be aware of different experiences
- Counteract stereotype threat





### GOOD LUCK