

DR KATY CLOUGH

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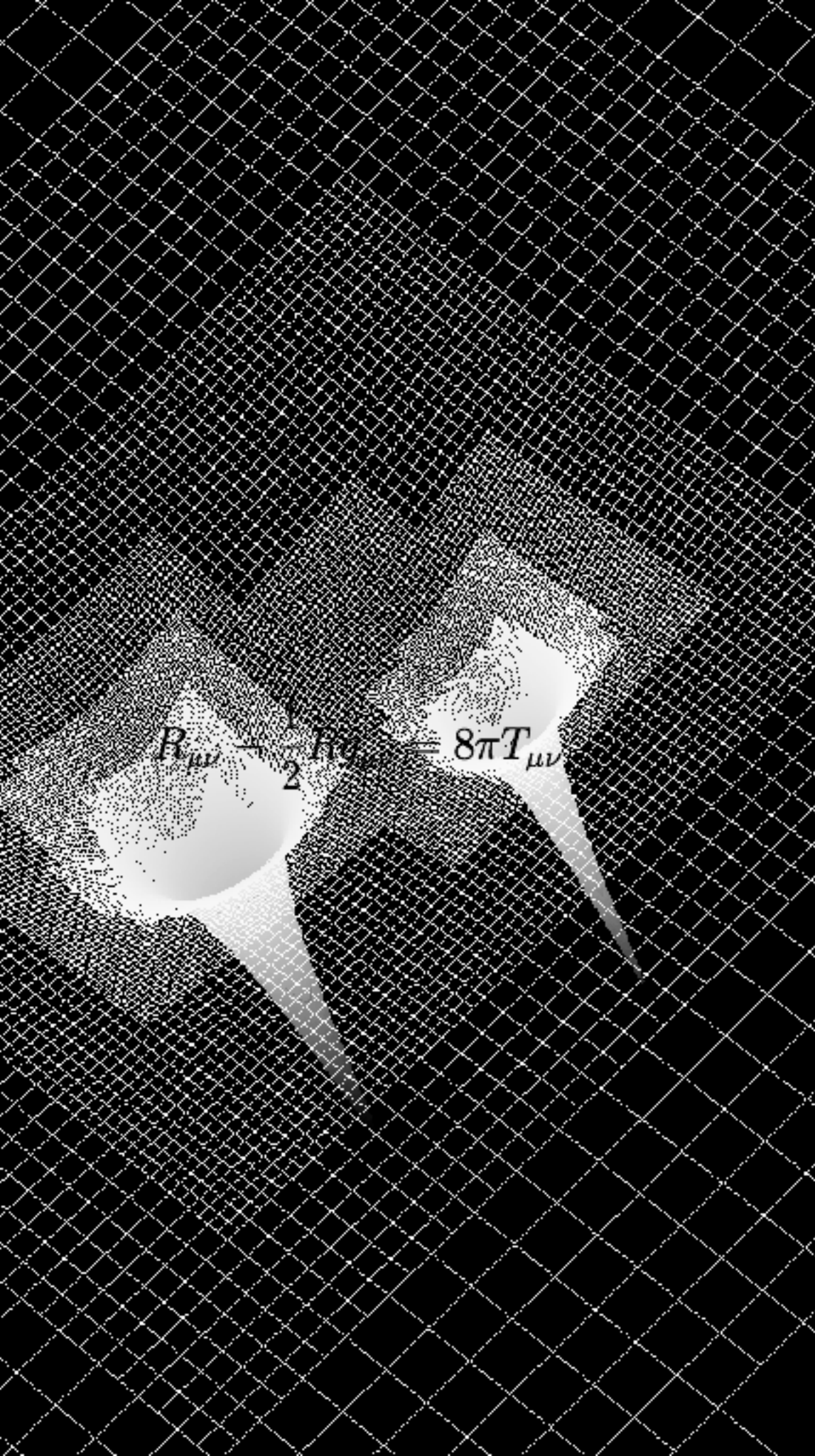
**STAYING IN THE PIPELINE**

# DISCLAIMERS

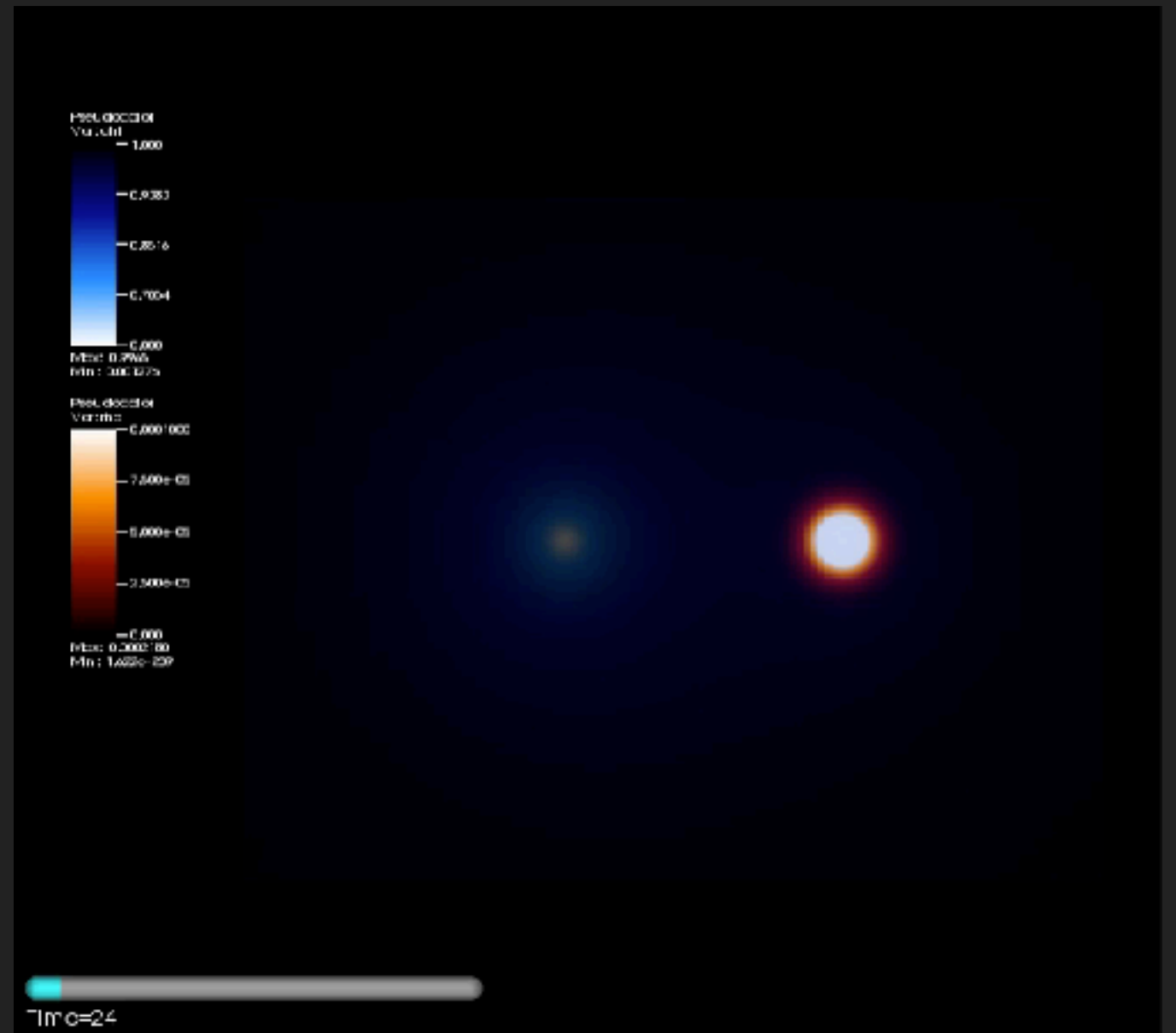
- ▶ I can of course only talk from my own experience
- ▶ I will generalise (sometimes wildly) to make points and get your interest #notallwomen #notallmen #notallbigfouraccountancyfirms etc

# I DON'T HAVE THE ANSWER TO WHAT YOU SHOULD DO IN LIFE, BUT...

- ▶ I would recommend that you stay in science
- ▶ This does not necessarily mean academia
- ▶ If you leave science you will miss aspects of it which I think are important in a career
- ▶ It is easy to make the decision to leave science for the wrong reasons

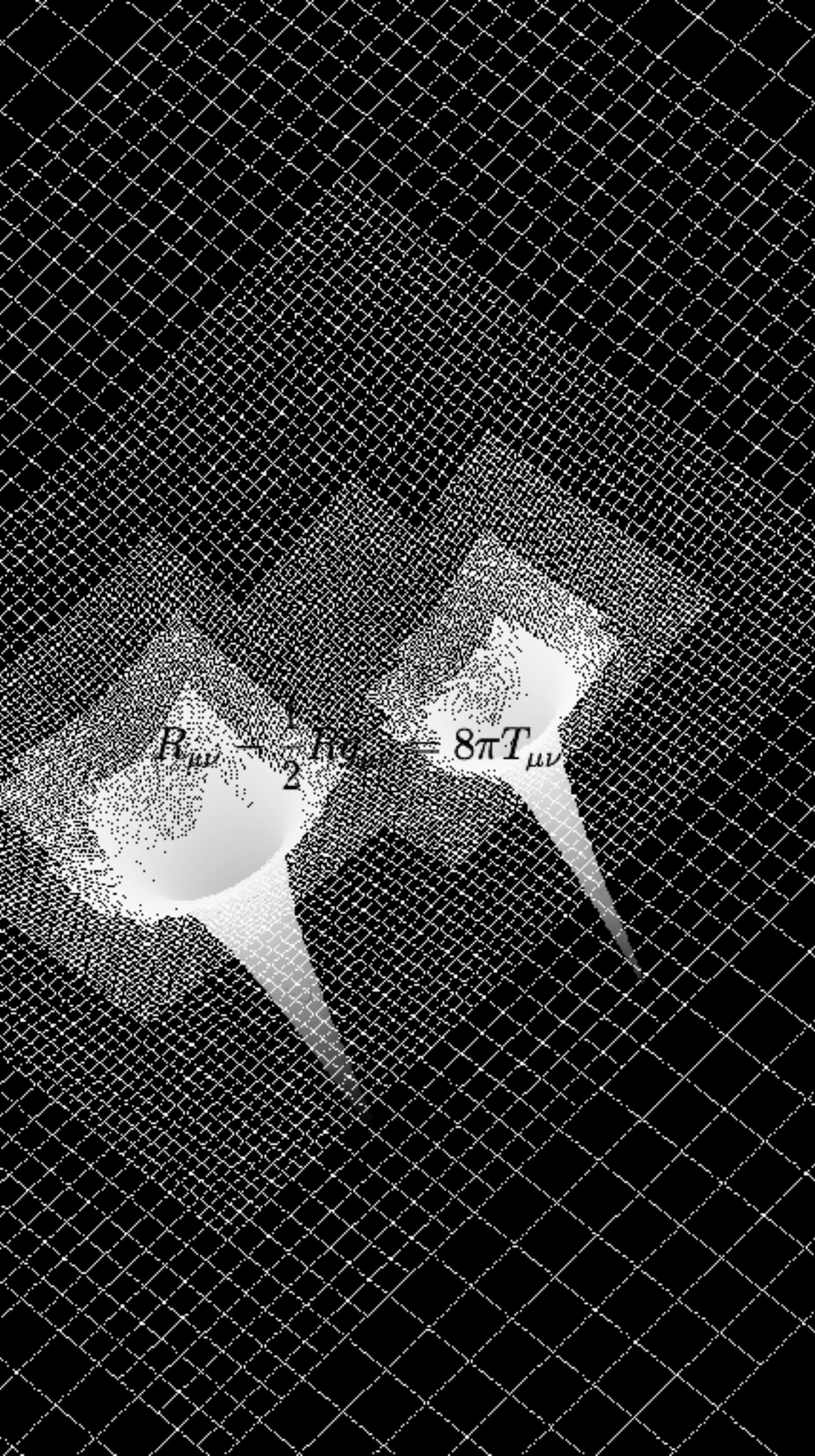


$$R_{\mu\nu} - \frac{1}{2}Rg_{\mu\nu} = 8\pi T_{\mu\nu}$$



# ABOUT ME





- MENG IN OXFORD
- CA IN BIG 4 ACCOUNTING FIRM
- MANAGER IN INVESTMENT CO
- OPEN UNI DEGREE IN PHYSICS
- PHD IN PHYSICS AT KCL
- POSTDOC IN GOETTINGEN
- POSTDOC IN OXFORD

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# ABOUT ME

# MY THREE BIG DECISIONS

- ▶ Do PhD or become chartered accountant?
- ▶ Do PhD in physics or stay in finance?
- ▶ Do postdoc in Germany or work in government (operational research)?

## DECISION 1: BECOME AN ACCOUNTANT? (VERSUS DO A PHD)



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### ▶ Reasons for:

- ▶ Challenge
- ▶ Relationship reasons
- ▶ Money
- ▶ Fear of failure
- ▶ Advice from others

### ▶ Reasons against:

- ▶ Gut instinct



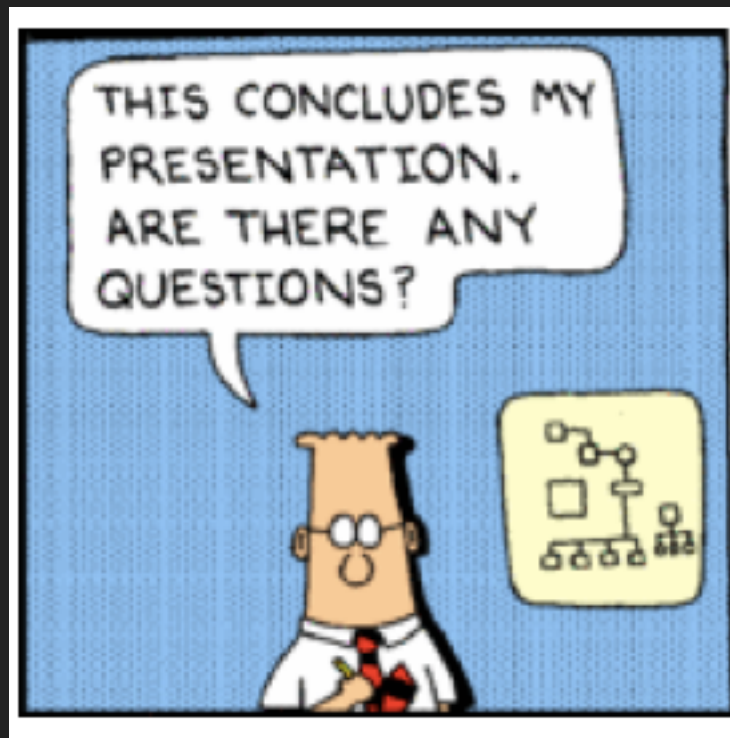
## DECISION 1: BECOME AN ACCOUNTANT? (VERSUS DO A PHD)

### ▶ Reasons for:

- ▶ Challenge **GOOD BUT MISGUIDED**
- ▶ Relationship reasons **BAD**
- ▶ Money **NOT COMPLETELY UNREASONABLE**
- ▶ Fear of failure **BAD**
- ▶ Advice from others **POTENTIALLY GOOD**

### ▶ Reasons against:

- ▶ Gut instinct **GOOD**
- ▶ Caring about what you do
- ▶ Creativity
- ▶ Freedom to think



THE "REAL WORLD"  
OF WORK IS  
CHALLENGING  
BECAUSE IT IS  
TEDIOUS, POINTLESS  
AND DIRTY

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**CHALLENGE**



**I've had bad luck with both my wives.  
The first one left me and the second one didn't.**

Patricia Murray Quetz

THE BEST THING YOU  
CAN DO FOR YOUR  
RELATIONSHIP IS TO  
MAKE YOURSELF  
FULFILLED IN YOUR  
WORK

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**RELATIONSHIPS**



- TRAINEE CA £32-35K
- QUALIFIED ACCOUNTANT  
£60K + BONUS (50%)
- PHD £14K (NO TAX)
- POSTDOC 1 €32K
- POSTDOC 2 £32K

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# MONEY



**IT IS POSSIBLE TO COMMIT  
NO MISTAKES AND STILL  
LOSE. THAT IS NOT A  
WEAKNESS. THAT IS LIFE.**



Captain Jean Luc Picard  
Star Trek TNG

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## **FEAR OF FAILURE**

**LEAVE YOUR HESITATION AND SELF  
DOUBT HERE AND GET TO THE BRIDGE**

**WHAT WOULD  
YOU DO IF YOU  
HAD NO  
CONSTRAINTS?**

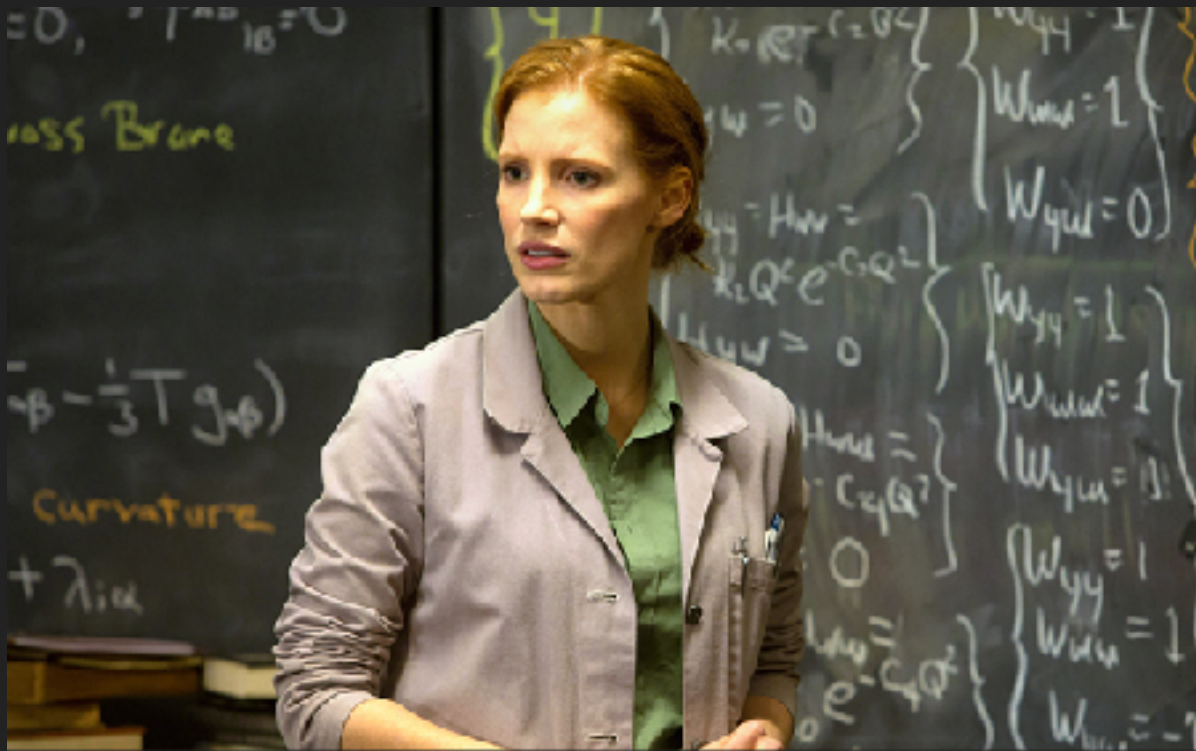


**FRIENDS OFTEN  
WANT TO SHIELD YOU  
FROM FAILURE AND  
DISAPPOINTMENT.  
THIS IS NICE, BUT  
UNHELPFUL.**

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**ADVICE FROM OTHERS**

# DECISION 2: DO A PHD IN PHYSICS? (VERSUS STAY IN FINANCE)



## DECISION 2: DO A PHD IN PHYSICS? (VERSUS STAY IN FINANCE)

### ▶ Reasons for:

- ▶ Care about what I do
- ▶ Creativity, space to think
- ▶ Gut instinct
- ▶ The purity of scientific endeavour

### ▶ Reasons against:

- ▶ Money, but who cares?



## DECISION 2: DO A PHD IN PHYSICS? (VERSUS STAY IN FINANCE)

### ▶ Reasons for:

▶ Care about what I do **GOOD**

▶ Creativity, space to think **GOOD**

▶ Gut instinct **GOOD**

▶ The purity of scientific endeavour **GOOD / MISGUIDED**

### ▶ Reasons against:

▶ Money, but who cares?

▶ Going back to level zero

**THERE IS NOW A  
LEVEL ZERO**

IF I HAD KNOWN  
HOW MUCH I DIDN'T  
KNOW, I PROBABLY  
WOULDN'T HAVE  
DONE A PHD



Master Shi fu  
Kung Fu Panda

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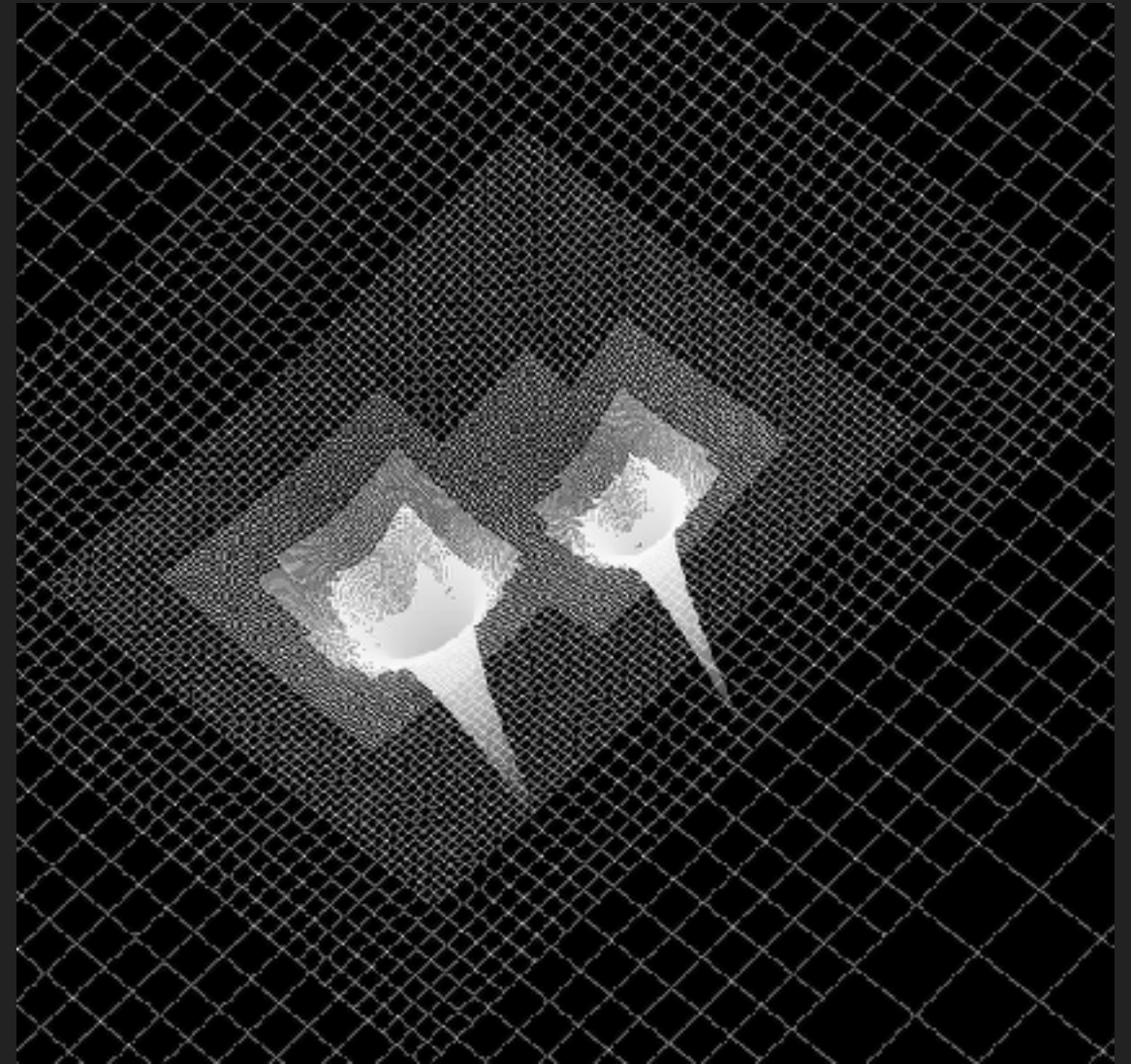
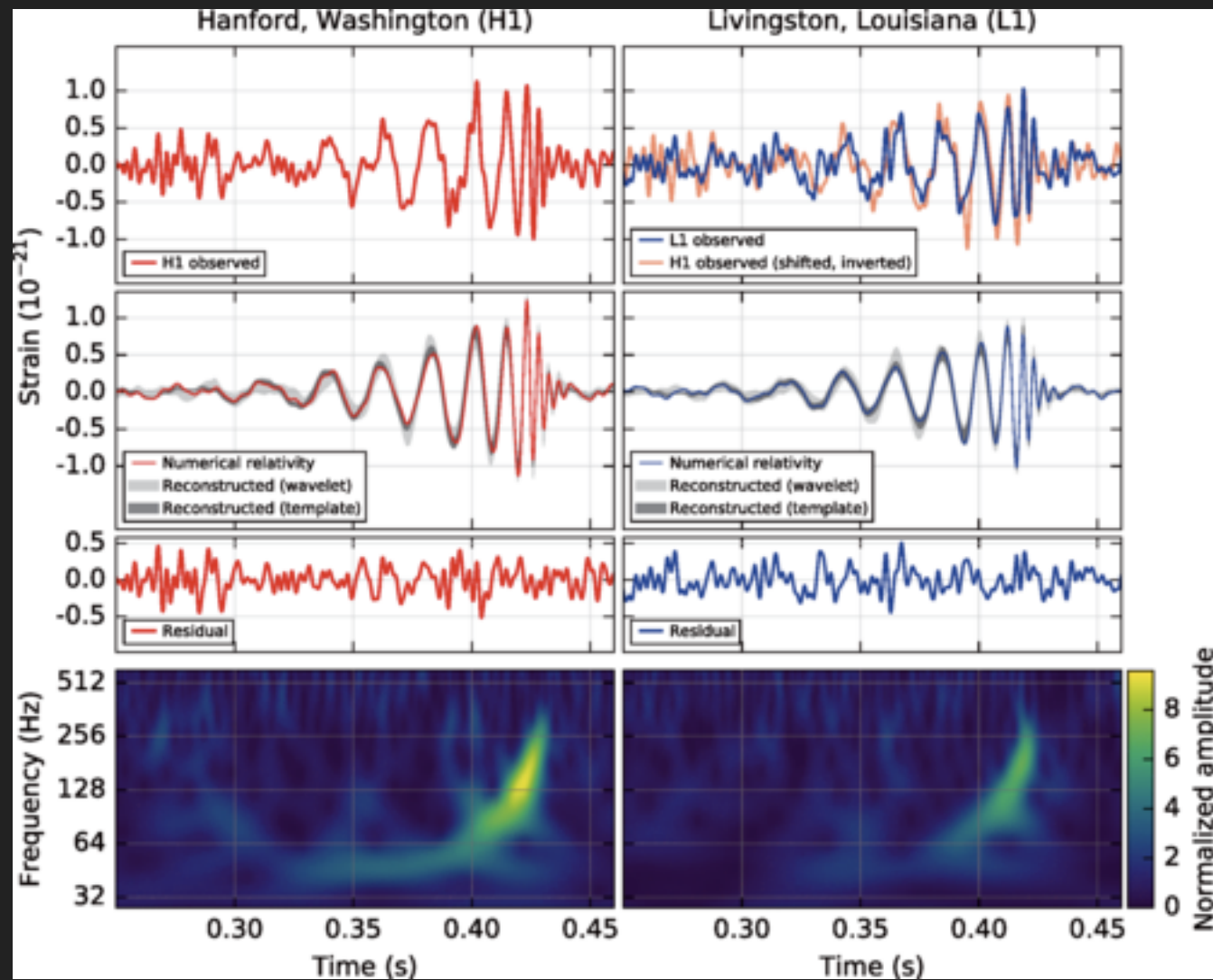
**FROM PRO TO  
LEVEL ZERO**

PEOPLE IN  
SCIENCE  
ARE  
ULTIMATELY  
AS CRAZY  
AS PEOPLE  
IN THE  
“REAL  
WORLD” OF  
BUSINESS



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**THE PURITY OF  
SCIENTIFIC ENDEAVOUR**



LIGO Collaboration, PRL 116, 061102 (2016)  
Observation of Gravitational Waves from a Binary Black Hole Merger

**BUT SCIENCE ITSELF IS BEAUTIFUL  
AND IMPORTANT AND INSPIRING**



## DECISION 3: DO POSTDOC IN GERMANY? (VERSUS WORK FOR GOVERNMENT OPERATIONAL RESEARCH)



# DECISION 3: DO POSTDOC IN GERMANY? (VERSUS WORK FOR GOVERNMENT OPERATIONAL RESEARCH)

### ► Reasons for:

- Continue doing research that I enjoy
- Doing something I feel is important and interesting
- Working with very smart, very motivated people
- Bigger office (!)

### ► Reasons against:

- Insecurity of postdoc life
- Money
- Fear of failure
- Advice from others
- Relationship
- Still often feel like level zero

### IN SUMMARY

- ▶ It's very tempting to take the easy path, because of money, pressure from others and/or a fear of failure
- ▶ Your working life is long - do you want to be doing this for the next 50 years? It is never too late to learn or change your path
- ▶ Don't take science for granted, it is worth pursuing

**WHATEVER YOU DO,  
GOOD LUCK**