


MAY 12

CELEBRATING
WOMEN IN
MATHEMATICS DAY



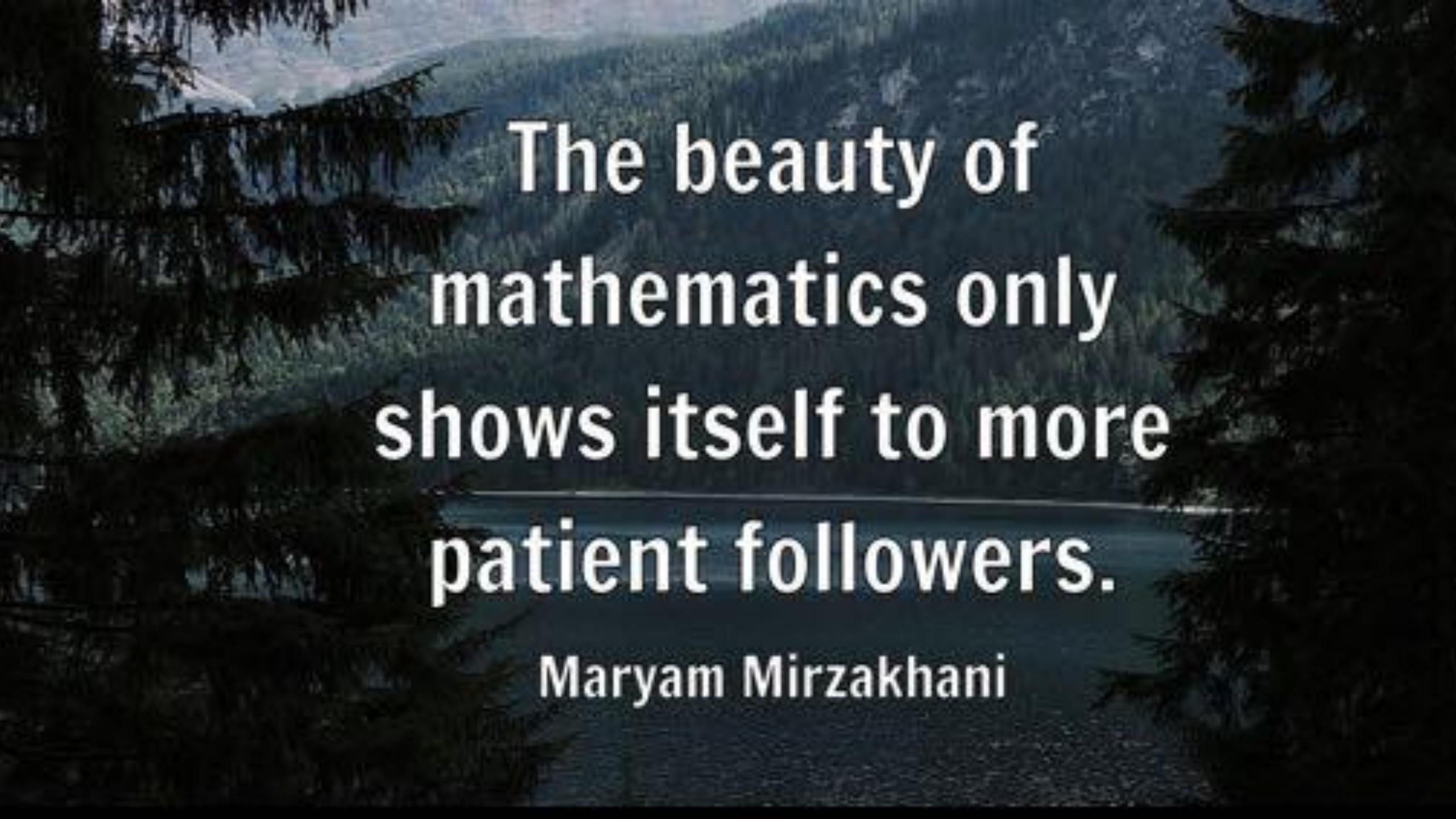
May 12th, 1977, is the birthdate of Maryam Mirzakhani.

12th May 2022

A portrait of Maryam Mirzakhani, an Iranian mathematician and Stanford University professor. She has short, dark brown hair and is looking slightly to the right of the camera with a calm expression. She is wearing a dark blue jacket over a green collared shirt. The background is a soft-focus green, suggesting foliage.

Iranian mathematician and
Stanford University professor
Maryam Mirzakhani has become
the first woman to win the Fields
Medal – known as the "Nobel
Prize of mathematics" – since the
award was established in 1936.

A mighty GIRL



The beauty of
mathematics only
shows itself to more
patient followers.

Maryam Mirzakhani

**"I HOPE THAT THIS AWARD WILL INSPIRE
LOTS MORE GIRLS AND YOUNG WOMEN, IN
THIS COUNTRY AND AROUND THE WORLD, TO
BELIEVE IN THEIR OWN ABILITIES AND AIM TO
BE THE FIELDS MEDALLISTS OF THE FUTURE."**

- PROFESSOR MARYAM MIRZAKHANI



FACEBOOK.COM/SONSANDBROS #DAUGHTERSANDSISTERS

Columbia

Who is Maryam Mirzakhani?

Maryam Mirzakhani was an Iranian mathematician and a Professor of Mathematics at Stanford University. She was one of the world's leading experts in geometry and dynamical systems. Her beautiful and astonishing results and her life and career are an inspiration for everyone, women and men, to pursue their dreams in science. She died tragically from cancer in 2017 at the early age of 40.

In 2014, Maryam Mirzakhani was awarded the Fields Medal for her *outstanding contributions to the dynamics and geometry of Riemann surfaces and their moduli spaces*, becoming the first woman, and the first Iranian, to be recognised for her mathematical achievements by this top mathematical prize.

In the few interviews she gave, Mirzakhani spoke eloquently of the beauty of mathematics and her joy in doing it.

12th May, her birthday, was chosen to celebrate Women in Mathematics in her memory.



A Riemann surface

<https://www.youtube.com/watch?app=desktop&v=9wikPQ-i7k4>





In science, technology, engineering
and mathematics, men far
outnumber women in the classroom
and the boardroom.

— *Weili Dai* —

AZ QUOTES

<https://www.youtube.com/watch?app=desktop&v=J9yZfdE965A>

CELEBRATING WOMEN IN MATHEMATICS



May 12

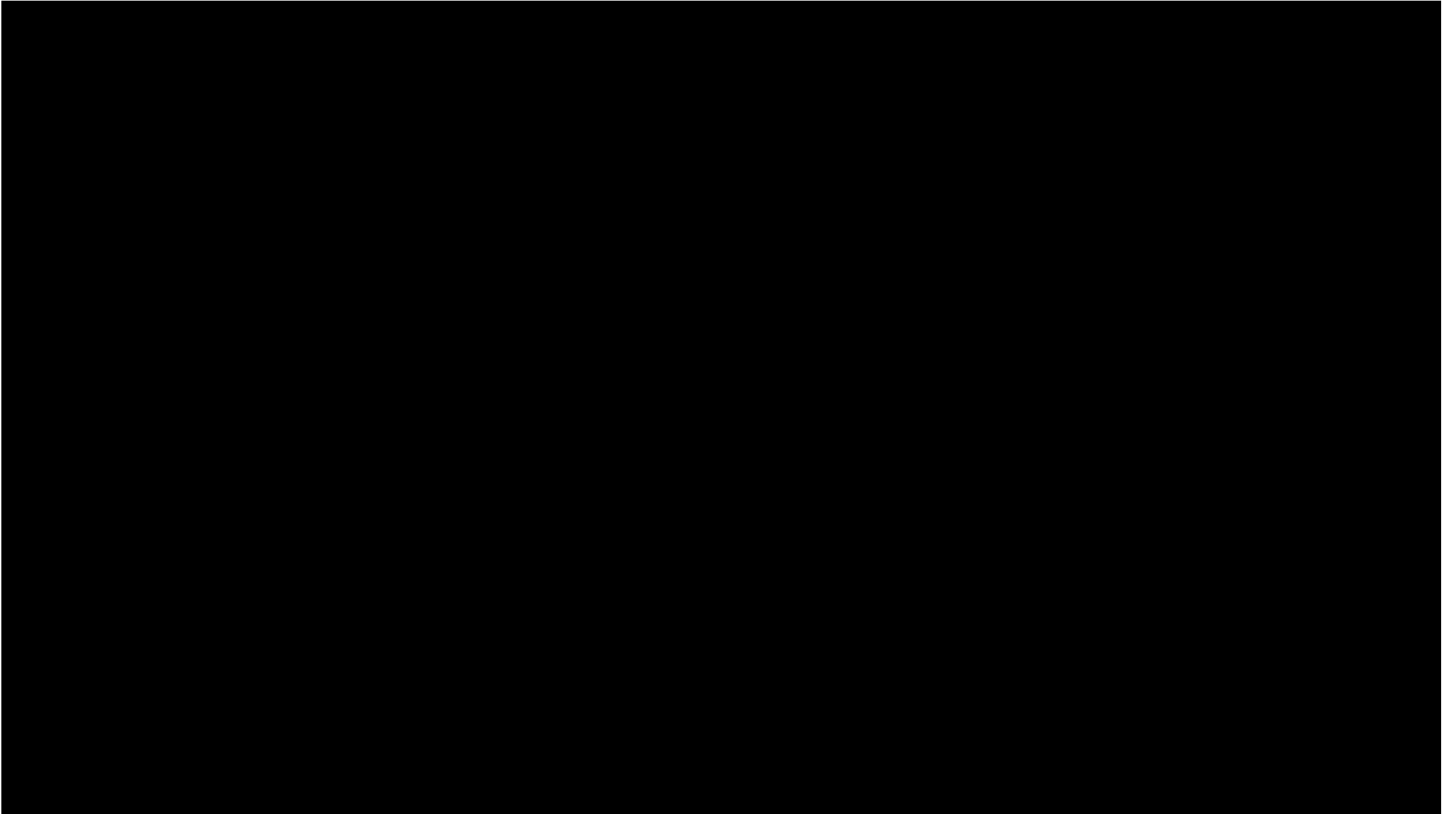


Fan Cheng, Monash University

Please do not be afraid. There are a bunch of passionate and smart people who are willing to share their thoughts with you.

Ladies from Nottingham University on why they love Maths!

https://www.youtube.com/watch?v=s_eNYlQ-i1I



Do you recognise these
two famous ladies who
studied STEM subjects?





Mayim Bialik

What Mayim did: American actress Mayim Bialik studied neuroscience at UCLA, where she went on to obtain a Ph.D in 2007. She is best known for her role as Dr. Amy Fowler in the comedy *The Big Bang Theory*, but has starred in countless other television shows and films.

Mayim's impact: Despite success in her early acting career, Mayim still decided to study neuroscience at university because she had a passion for the subject. She believes strongly in the involvement of women in STEM subjects and has spoken at events on the topic encouraging girls to pursue these disciplines. She also plays the bass and trumpet!

Rachel Riley



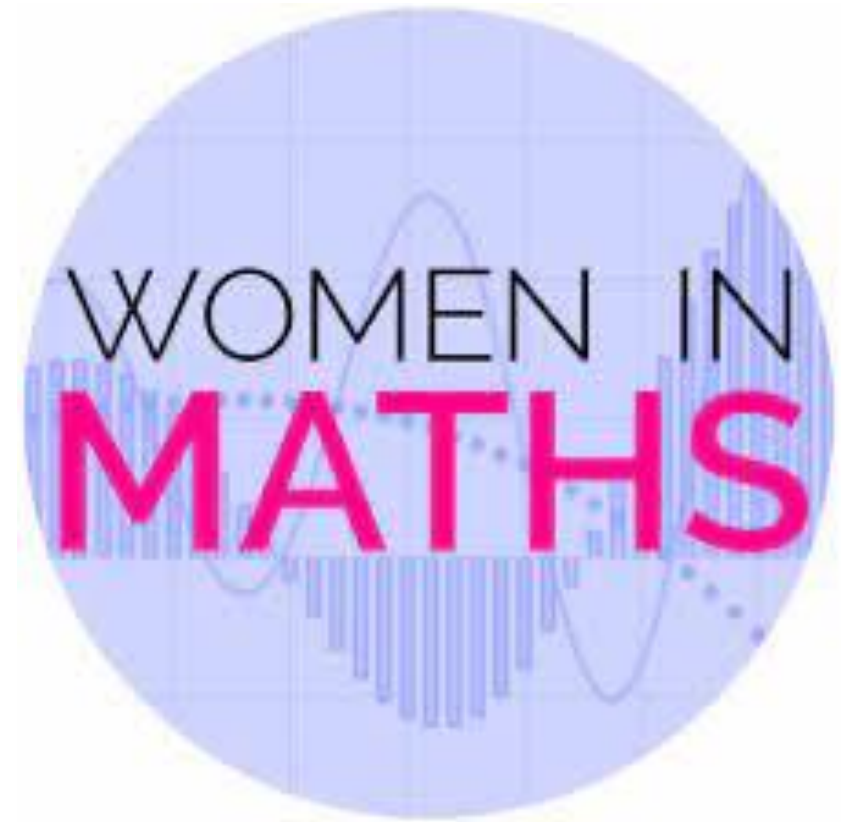
What Rachel did: Television presenter Rachel Riley studied Mathematics at Oxford University. At age 22 she joined *Countdown* where she applies her maths skills on a regular basis, handling the letters and numbers rounds to find solutions to complicated problems. She has gone on to present other shows including *8 Out of 10 Cats Does Countdown* and *The Gadget Show*, and even starred as a contestant on *Strictly Come Dancing*!

Rachel's impact: Riley has visited many schools over the years in an endeavour to inspire children on the “joys of applied maths, quantum mechanics and time travel” and increase the numbers of females participating in STEM subjects. She has shown us that pursuing your passion and studying maths at university can lead to us down different avenues, including less conventional ones such as a career in television!

“There’s no reason for men to be better at maths than women – it’s just about our perception.”

You Need To Know About These Remarkable Women In Mathematics Now

Here are a few more famous Women in Maths that you may not have heard of before, but you should probably know about, due to their huge contributions....!



Katherine Johnson



NASA

“Girls are capable of doing everything men are capable of doing.”

Katherine Coleman Goble Johnson was an African-American Mathematician. She is well known for her outstanding contributions to space travel and exploration.

Johnson was part of the team that calculated where and when to launch the rocket for the Apollo 11 mission of 1969, which sent the first three men to the Moon. Johnson later worked on the space shuttle program.



“

We will always have STEM with us. Some things will drop out of the public eye and will go away, but there will always be science, engineering, and technology. And there will always, always be mathematics.

KATHERINE JOHNSON
NASA RESEARCH MATHEMATICIAN



Dorothy Vaughan

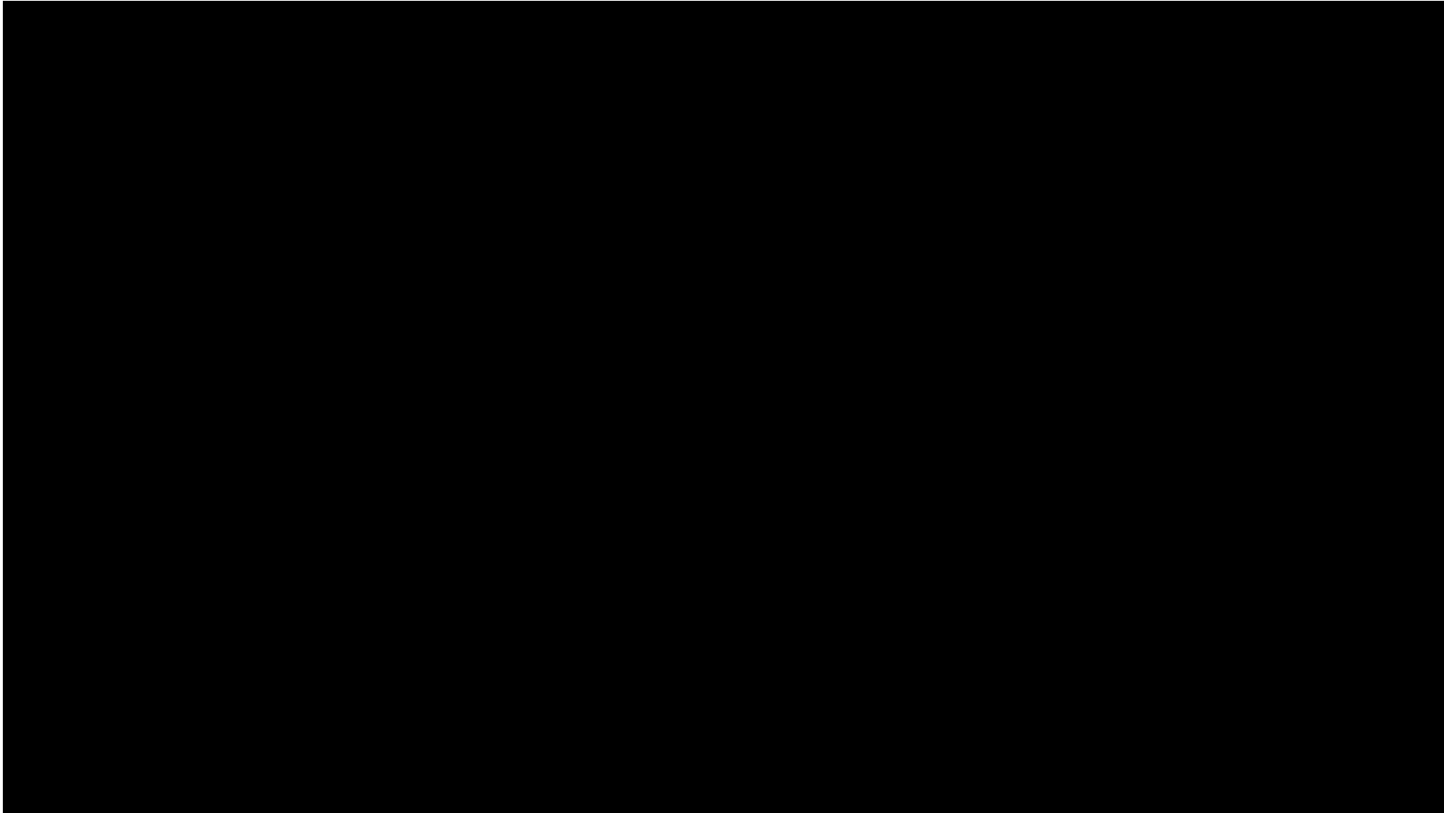


Dorothy was a mathematician and human computer who worked for the National Advisory Committee for Aeronautics, and NASA, at Langley Research Centre in Hampton, Virginia.

Vaughan's job was an American mathematician and computer programmer who made important contributions to the early years of the US space program. During this period, the US was on a race against Russia on who can get to the moon first. She was also the first African American manager at NACA (National Advisory Committee for Aeronautics) which later became part of the National Aeronautics and Space Administration (NASA).



<https://www.youtube.com/watch?v=KfHHu9lhMPI&t=25s>

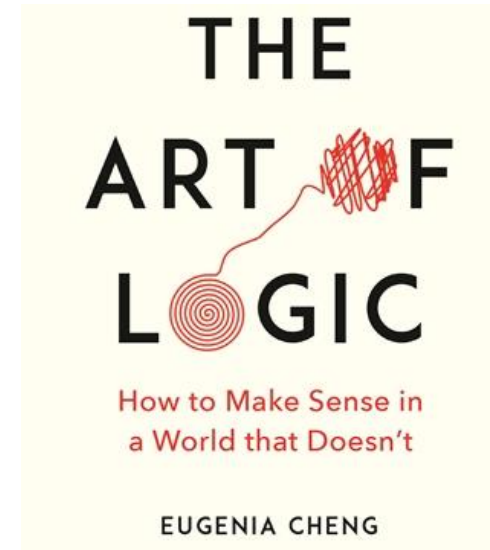


Dr Eugenia Cheng



Eugenia Cheng

Alongside her research in Category Theory and undergraduate teaching, her aim is to rid the world of 'maths phobia'. Eugenia was an early pioneer of mathematics on YouTube and her videos have been viewed over 10 million times.



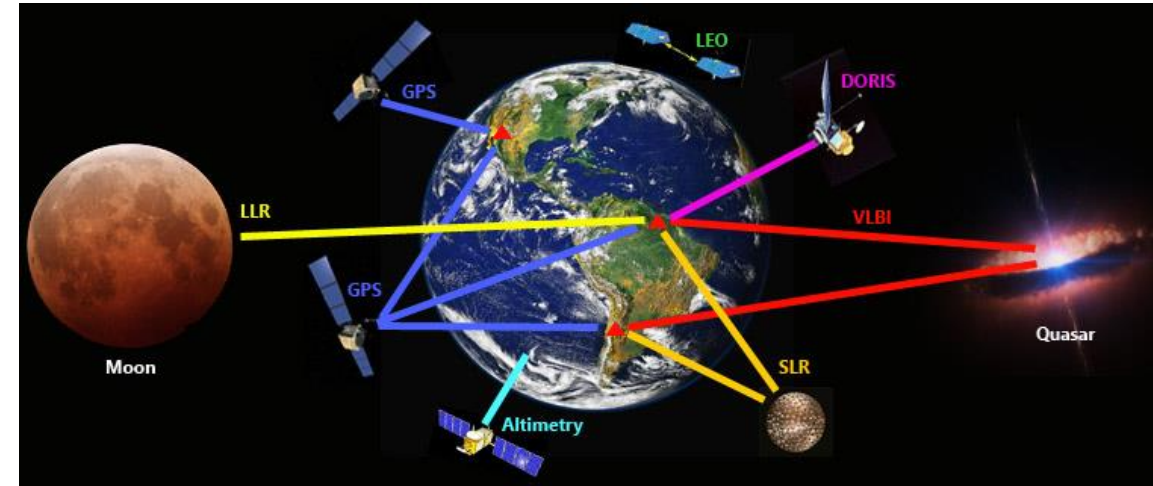
Eugenia Loh-Gene Cheng is an English mathematician, pianist, Scientist-in-Residence at the School of the Art Institute of Chicago and an honorary fellow of pure mathematics at the University of Sheffield.

Dr Gladys West



Inside GNSS

Gladys is known for her contributions to the mathematical modelling of the shape of the Earth, and her work on the development of the satellite geodesy models that were eventually incorporated into the Global Positioning System.

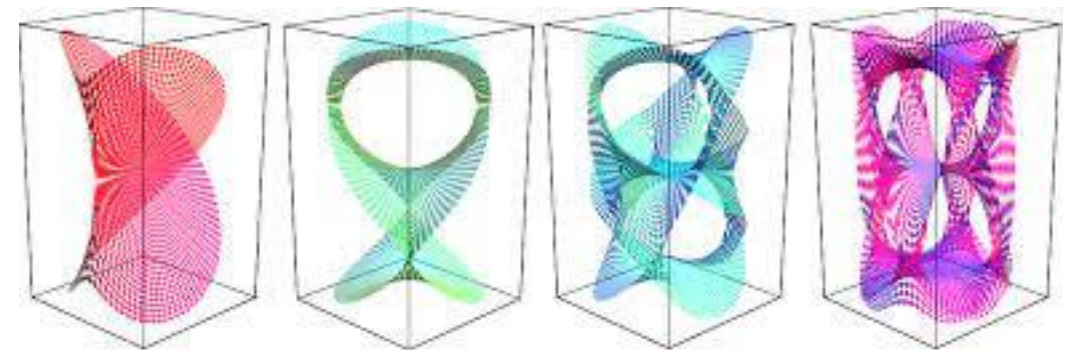


Gladys Mae West is an American mathematician and is often called the “Hidden Figure” behind the GPS system used in maps and navigation today.

Maryam Mirzakhani



Maryam made exceptional contributions to the study of the dynamics and geometry of mathematical objects called Riemann surfaces.



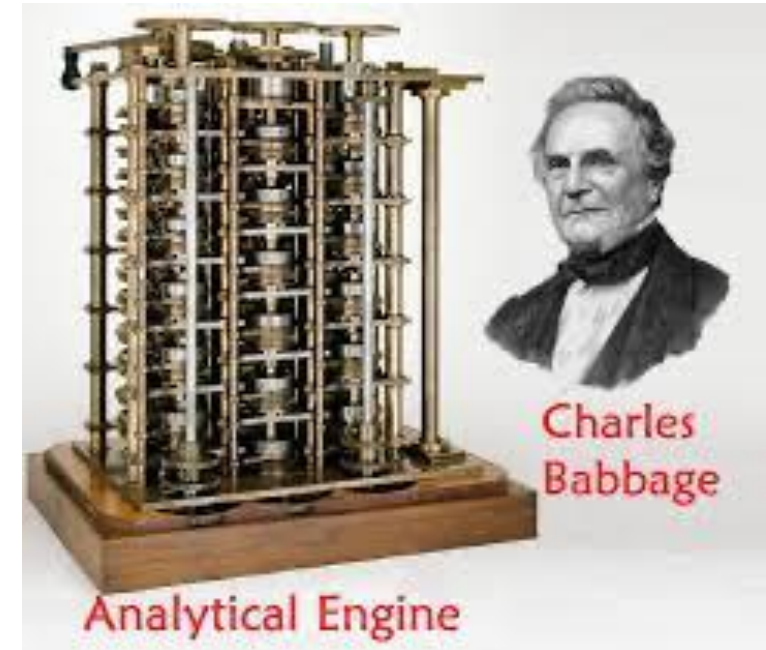
Maryam Mirzakhani was an Iranian mathematician. She was honoured with the Fields Medal, the most prestigious award in mathematics.

Ada Lovelace



Metro

Augusta Ada King, Countess of Lovelace – chiefly known for her work on Charles Babbage's proposed mechanical general-purpose computer, the Analytical Engine.



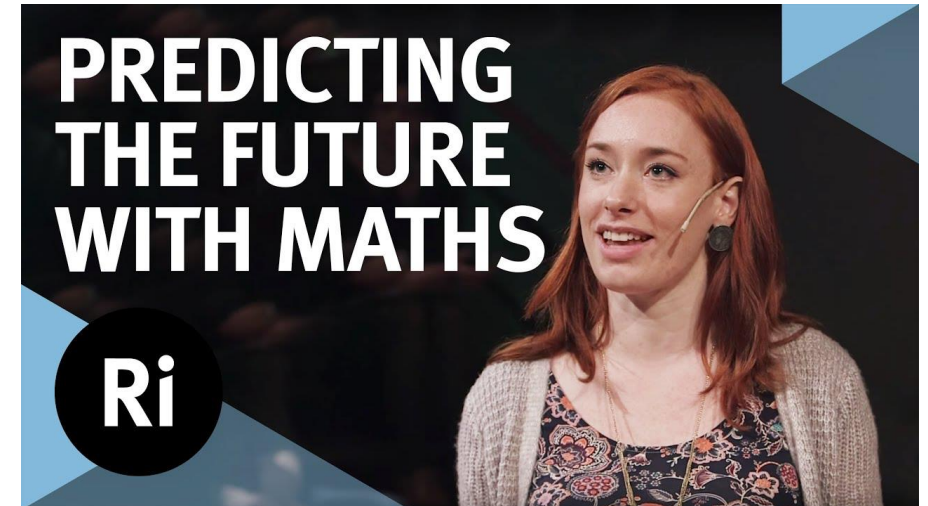
Ada Lovelace was a British mathematician. She is widely considered the first person to write instructions for computer programs in the 1800's!

Dr Hannah Fry



The Telegraph

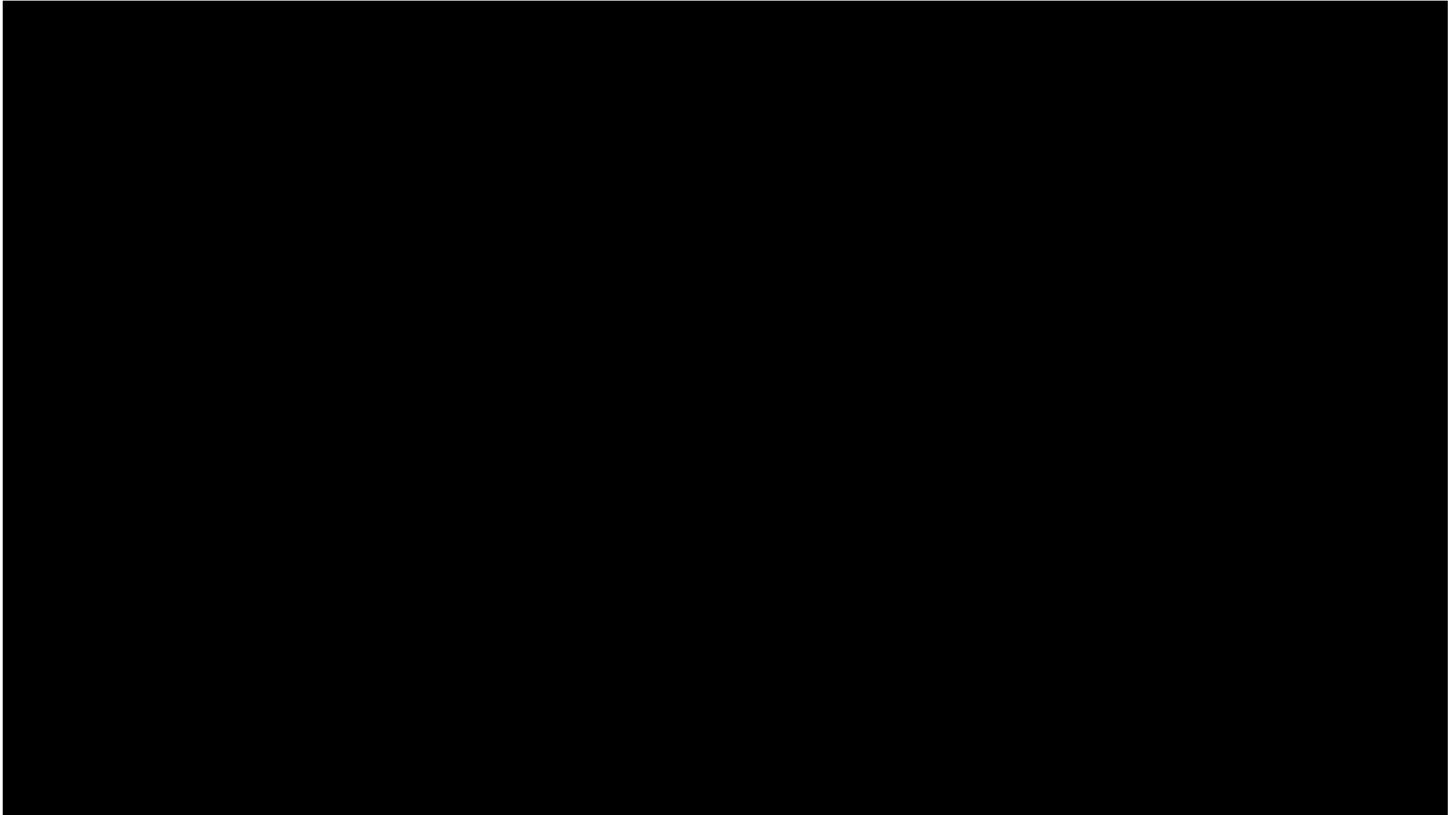
Hannah Fry is a British mathematician, author, lecturer, radio and television presenter, podcaster and public speaker. She is Professor in the Mathematics of Cities at the UCL Centre for Advanced Spatial Analysis.

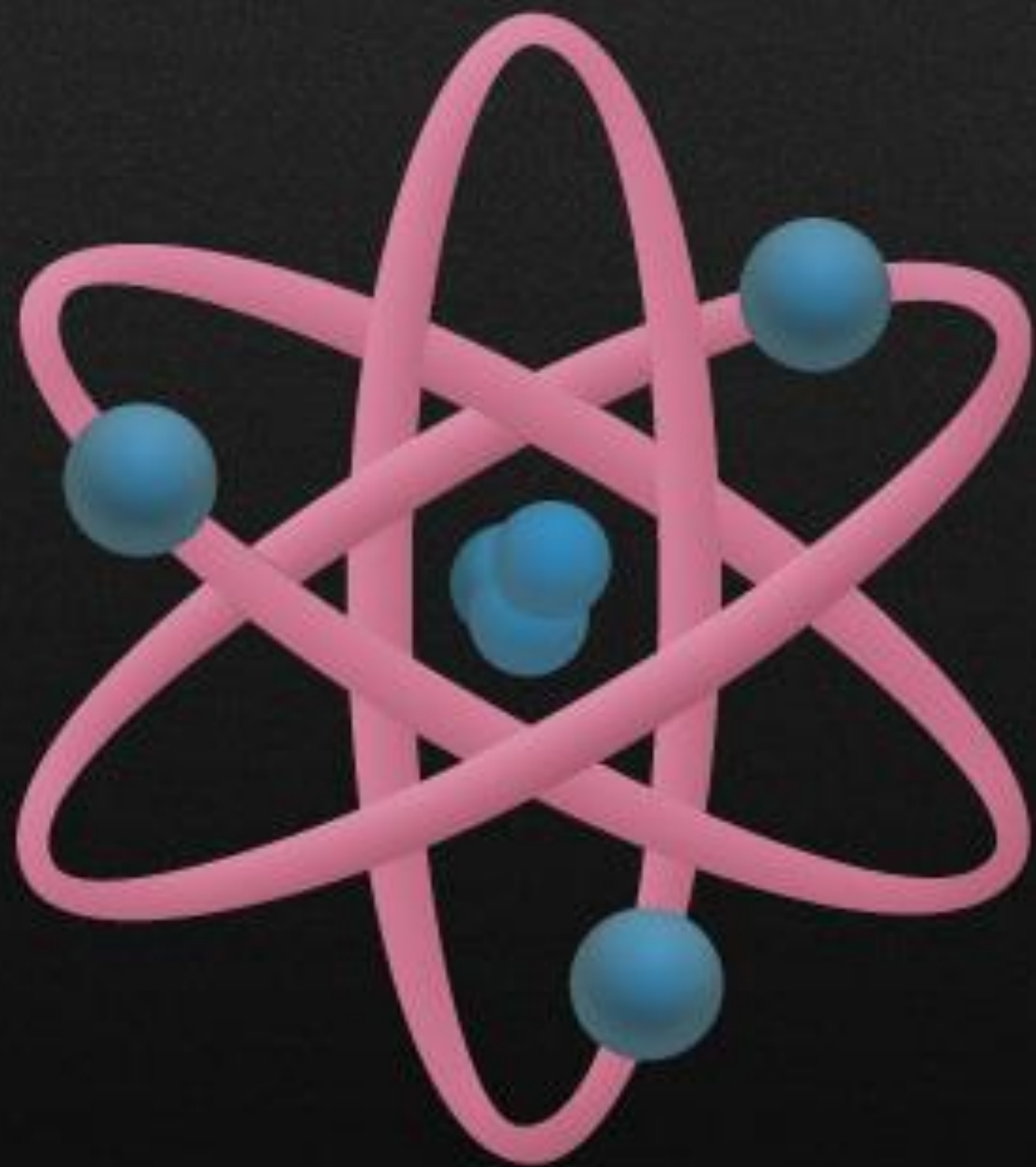


Hannah researches trends in everyday life and sees how she can use maths to forecast the future and she is currently a lecturer at UCL, where she did her undergraduate and postgraduate degrees.

Here is one of Dr Fry's many videos on
engaging people with learning Mathematics!

[https://www.youtube.com/watch?v=-
LI9iX9tC1k&list=UU3NspnKjEzu-LN20QpHR3nw&index=1](https://www.youtube.com/watch?v=-LI9iX9tC1k&list=UU3NspnKjEzu-LN20QpHR3nw&index=1)





33 PERCENT

Women who work in science, technology, engineering and math fields (STEM) earn on average 33 percent more than their counterparts in other fields.



www.whitehouse.gov

**I always smile when I hear
that women cannot excel in
mathematics.**

Evelyn Boyd Granville


www.idlehearts.com



Evelyn Boyd Granville was the second African-American woman to receive a Ph.D. in mathematics from an American university

She performed pioneering work in the field of computing