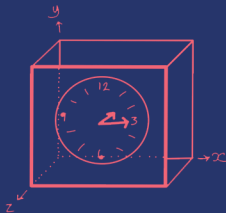


The Extraordinary Universe

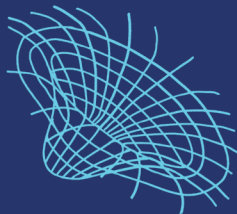
$$E=mc^2$$



SPACETIME



GRAVITY



@emmanigma



@emmanigma_

www.emmalouiseosborne.com

EXTRA DESIGNS BY

www.oliver-dean.com

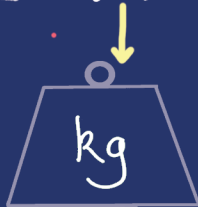
UNIVERSITY OF
Southampton

$$E=mc^2$$



ENERGY

IS
EQUAL
TO



MASS

TIMES
BY
THE



CONSTANT

SPEED OF LIGHT
(300,000,000 m/s)

SQUARED



OF
MASS

CONTAINS

9×10^{16} JOULES
OF
PURE
ENERGY

THAT'S
ENOUGH
ENERGY
TO POWER
THE U.K



FOR
ONE
YEAR

SPACETIME

WE DEFINE
THE UNIVERSE
AS HAVING

4
DIMENSIONS

TIME WITHOUT A PLACE
AND A PLACE WITHOUT TIME
DOESN'T MAKE SENSE!

{ 3 IN SPACE
&
1 IN TIME



BECAUSE

WE NAVIGATE
SPACETIME IN
OUR EVERYDAY
LIVES.

FOR EXAMPLE;

TO MEET
SOMEONE
YOU
ARRANGE



A TIME

AND



A
PLACE



GRAVITY

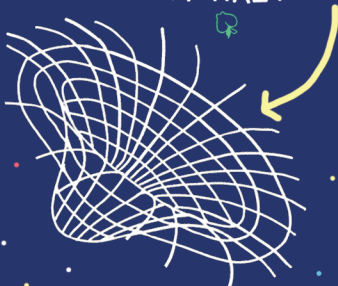
WHAT WE EXPERIENCE AS GRAVITY IS ACTUALLY
THE **CURVATURE OF SPACETIME**



THE MORE MASS SOMETHING HAS,
THE MORE IT BENDS SPACETIME,



THE STRONGER THE
GRAVITATIONAL FORCE.



EINSTEIN'S THEORY OF GENERAL RELATIVITY

$$G_{\mu\nu} = \frac{8\pi G}{c^4} T_{\mu\nu}$$

