

CLASSICAL PHYSICS: THE GREAT BUILDUP TO 1905

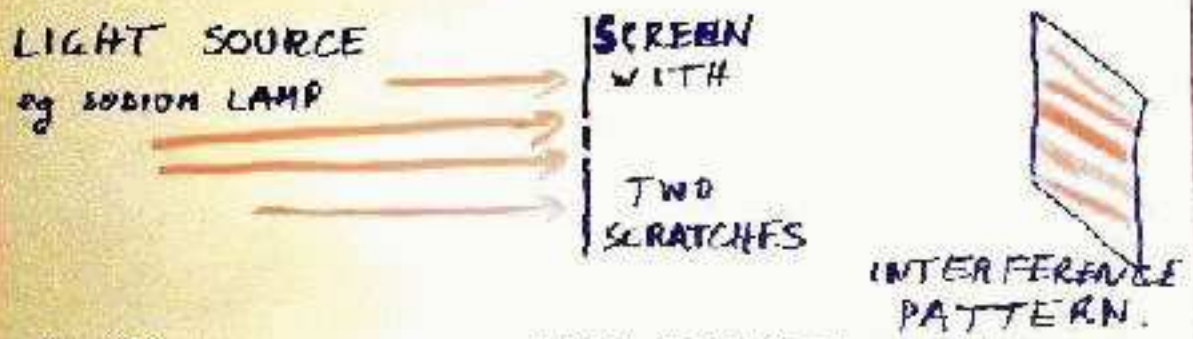
DESCRIPTION ↓	PHYSICS THEORY	MOTIVATION, ACHIEVEMENT	THEORY of REALITY ↓
Δ ANGLE SUM = 180° $a^2 + b^2 = c^2$ IN RIGHT Δ	ARITHMETIC MEETS GEOMETRY	AXIOMS ↓ THEOREMS	GARDEN OF EDEN: ↑ GOD MADE IT BUT WE HAVE FREE WILL
EARTH IS A SPHERE	PLANETS GO AROUND SUN	MAD PATHS OF "PLANETS" EXPLAINED	<u>EXPERIMENT</u> TRUMPS AUTHORITY (OBSERVER/OBSERVED) (REPEATABILITY)
$v = at$	HEAVY THINGS FALL AT THE SAME SPEED	GALLILIO PROVOKES INQUISITION	
$F = \frac{G m_1 m_2}{r^2}$	GRAVITY EXPLAINS THE SOLAR SYSTEM	LAWS of MOTION MECHANICS	DETERMINISTIC WORLD OF MASS-FIELD BUT WE ARE SPIRIT & HAVE FREE WILL
2/8/18/18... PATTERN	PERIODIC TABLE	CHEMISTRY DEFEATS ALCHEMY	VICTORY OVER INTUITION & COMMON SENSE!
Max Efficiency = $\frac{T_1 - T_2}{T_1}$	LAWS OF THERMODYNAMICS	CARNOT OPTIMISES HEAT ENGINES	
MAXWELL SUMMARISES WITH VECTOR EQNS. $\oint \mathbf{E} \cdot d\mathbf{l} = -\frac{d\Phi_B}{dt}$	LIGHT IS ELECTROMAGNETIC	UNIFICATION OF ELECTRIC/MAGNETIC FIELDS	
MINKOWSKI METRIC $ds^2 = dt^2 - dx^2 - dy^2 - dz^2$	SPEED CAUSES TIME DILATION, LENGTH CONTRACT	INCONVENIENT MICHELSON/MORLEY EXPERIMENT EXPLAINED	WONDERFUL MACHINES, WEAPONS &

CLOUDS ON THE HORIZON!

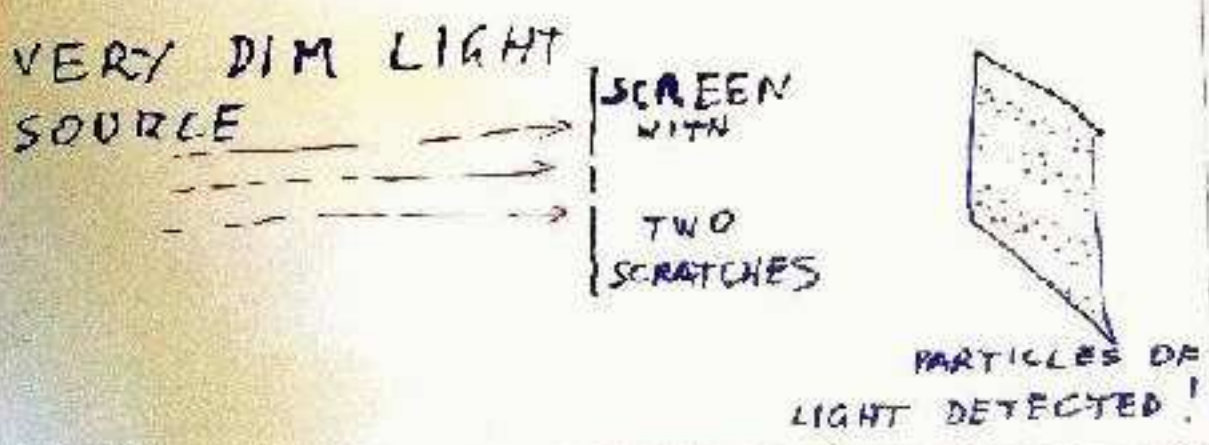
QUANTIZATION BEGINS:

MAHIS YOUNGS 2 SLIT EXPERIMENT

DATE
1800



BUT; MODERN DAY EXPERIMENT WITH CCD (DIGITAL CAMERA)



1980

PHOTOELECTRIC EFFECT (EINSTEIN)

1905

METAL IN

EINSTEIN BELIEVED!

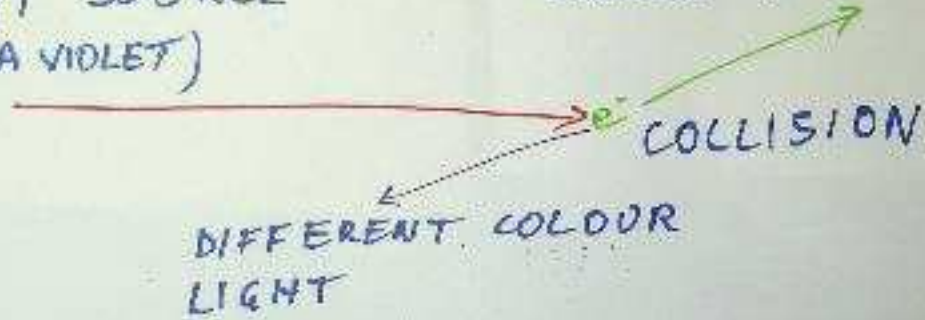
MATHS

COMPTON EFFECT:

LIGHT SOURCE
(ULTRA VIOLET)

ELECTRON

$$E = hf$$



DATE

~ 1920