

# THE “GREAT MISTAKE”

*Mark Twain:*

*It ain't what you don't know that gets you in trouble. It's what you know for sure that just ain't so.*

M.D. Earl 2023

**THIS WEBSITE MATHEMATICALLY SHOWS HOW AND WHY THINGS YOU “KNOW” ARE NOT TRUE. SOME TRUTHS WHICH ARE CONTRARY TO WHAT IS “KNOWN”:**

**H<sub>0</sub> (for universe) IS CONSTANT.**

**C EXPONENTIALLY INCREASES**

**TIME IS ABSOLUTE**

**UNIVERSAL ACCELERATION IS H<sub>0</sub>C**

**CURRENT ASTRONOMICAL DISTANCES AND VELOCITIES ARE REplete WITH  
INCORRECT CALCULATIONS**

**ALL THEORIES ARE BASED UPON OBSERVABLE FUNDAMENTAL PRINCIPLES.**

**IF THE FUNDAMENTALS ARE WRONG, THE THEORY WILL BE WRONG.**

**RELATIVITY IS BASED UPON FAMILIAR (EARTHLY) INERTIAL MATHEMATICS AND A POSTULATED CONSTANT LIGHT SPEED, C .... THE “GREAT MISTAKE”.**

**THIS “GREAT MISTAKE” HAS LED COSMOLOGY ASTRAY FOR OVER 100 YEARS.**

**INSTEAD, OUR UNIVERSE IS UNDERGOING A CONTINUOUS UNRECOGNIZED EXPONENTIAL EXPANSION (XPXP) AS PER THE HUBBLE/LEMAITRE LAW.**

**IT IS NOT POSSIBLE TO USE NON-EXPONENTIAL MATH TO DESCRIBE AN XPXP COSMOS.**

**SPECIAL AND GENERAL RELATIVITY, AND THEREFORE THE COSMIC  $\lambda$ CDM MODEL, ARE INCORRECT.**

**IT WILL BE DEMONSTRATED THAT THE MATHEMATICS OF A THEORY OF EXPONENTIAL EXPANSION (XPXP) EXPLAINS WHAT WE THINK WE “KNOW”, IS NOT NECESSARILY TRUE.**

**TODAY'S SO-CALLED “CRISIS IN COSMOLOGY” IS CAUSED BY IMPROVED TECHNOLOGY REVEALING WEAKNESSES IN THE  $\lambda$ CDM THEORY.**

**XPXP SHOWS:**

**GRAVITATION AND THE HUBBLE FLOW OBEY THE SAME XPXP PRINCIPLES.**

**LIGHT SPEED IS MEASURED AS A CONSTANT ANYWHERE IN AN XPXP UNIVERSE. WHEN DEVELOPING THE (XPXP) MODEL, IT WAS DISCOVERED THAT LIGHT SPEED IS MEASURED AS CONSTANT FROM ANY FRAME! THIS IS SHOWN ON THE WEBSITE.**

**THE DISTANCE TO A GALAXY IS LIGHT SPEED TIMES THE TIME IT TAKES TO GET THERE. SIMPLE, BUT INCORRECT.**

**COSMIC ACCELERATION = HOC**

HUBBLE'S LAW  
IS EXPONENTIAL RELATIONSHIP

HUBBLE'S LAW:  $\frac{dR}{dt} = H_0 R$

WHERE  $R$  = DISTANCE TO GALAXY  
 $H_0$  = HUBBLE'S CONSTANT

CROSS MULTIPLY:  $\frac{1}{R} dR = H_0 dt$

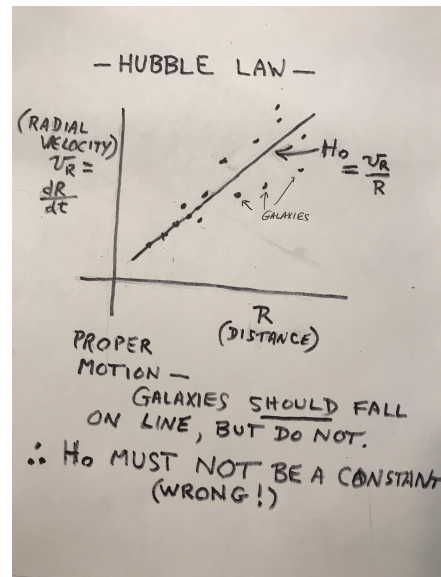
INTEGRATE:  
BOTH SIDES  $\ln\left(\frac{R}{R_0}\right) = H_0 t$

$\frac{R}{R_0} = e^{H_0 t}$

POSITION:  $R = R_0 e^{H_0 t}$

VELOCITY:  $v_R = \frac{dR}{dt} = H_0 R_0 e^{H_0 t}$

ACCELERATION:  $a_R = \frac{d^2 R}{dt^2} = H_0^2 R_0 e^{H_0 t}$



**BUT  $H_0$  MUST BE CONSTANT**

**$H_0$  IS NOT CONSTANT BECAUSE NON-EXPONENTIAL MEASUREMENTS ARE USED TO PROVE IT.**

**IT MUST BE REALIZED THE EFFECT UPON COSMOLOGICAL THEORY IF LIGHT SPEED IS NOT CONSTANT. THE IMPACT OF REVELATION IS IMMENSE, REQUIRING NEW CONSIDERATIONS.**

**THE UNCONVENTIONAL, BUT VALID, LOGIC AND MATH OF THE XPXP THEORY IS PRESENTED ON THIS SITE. PLEASE ATTEMPT TO UNDERSTAND IT BEFORE SUMMARILY DISMISSING.**

**IT SHOULD INTRODUCE AN ENTIRELY DIFFERENT PERSPECTIVE TO ALL.**