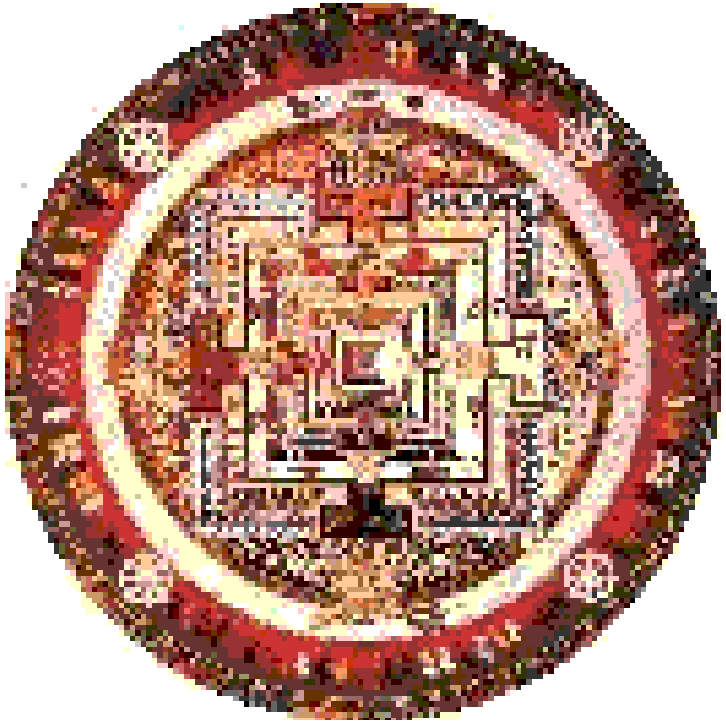
The Physics of the Mandala

An Introduction

Explorations of a Universal Archetype



(1) There are two faces of c

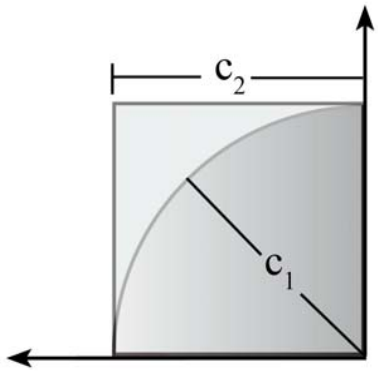
(2) Special Relativity works only with one face

(3) Ergo: **Special Relativity is incomplete!**

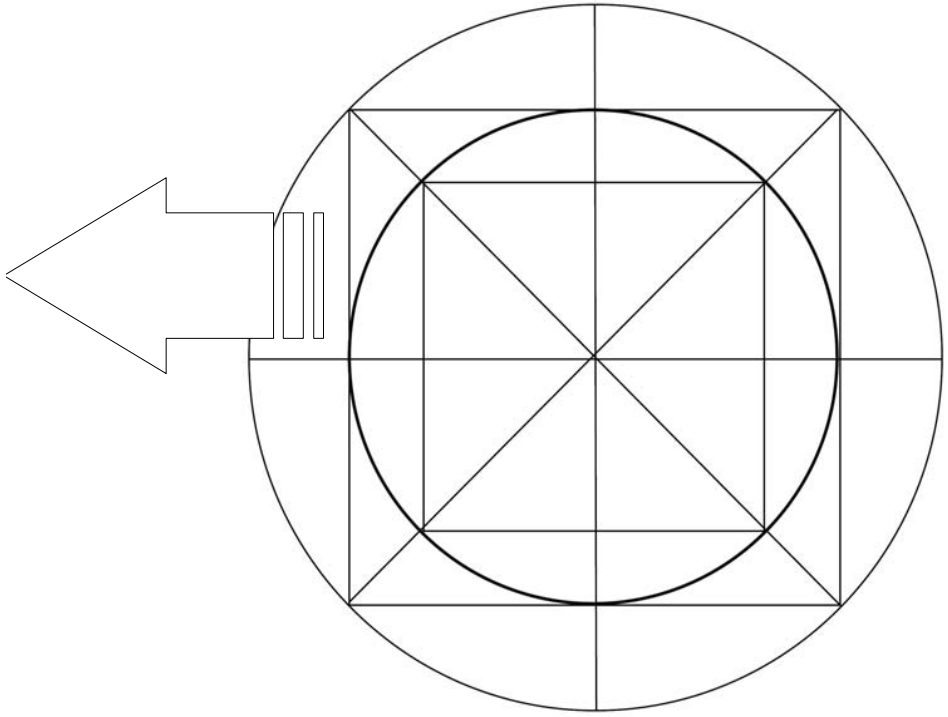
(4) The second face of c was already discovered but not recognized

(5) The Ether-Drift is far smaller than predicted by Classical physics

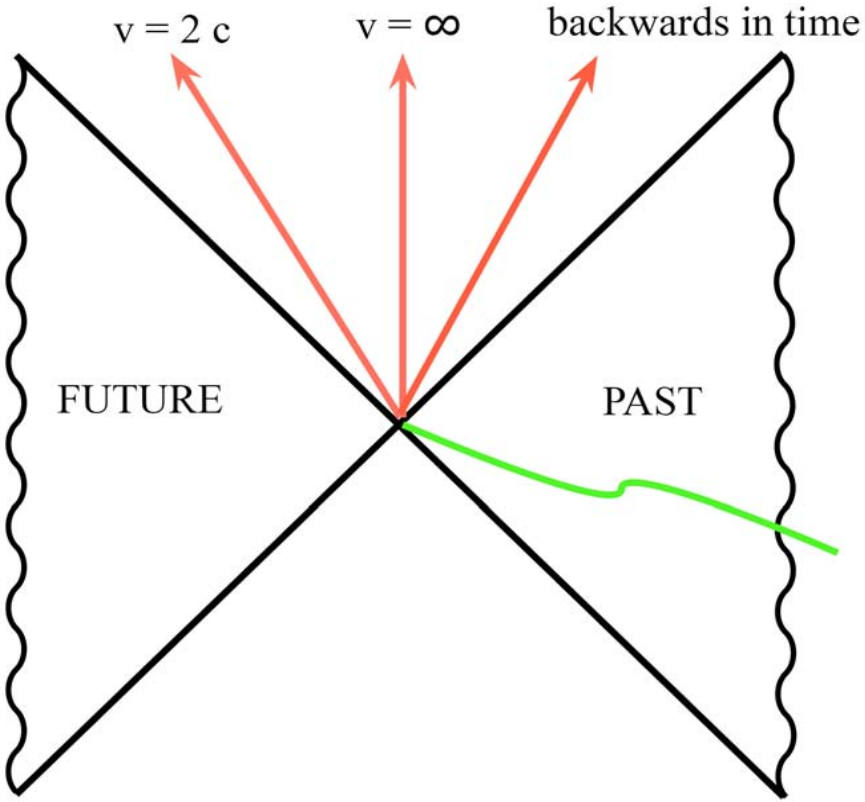
The Two Faces of c



$c_1 = c_2 = c = 1$



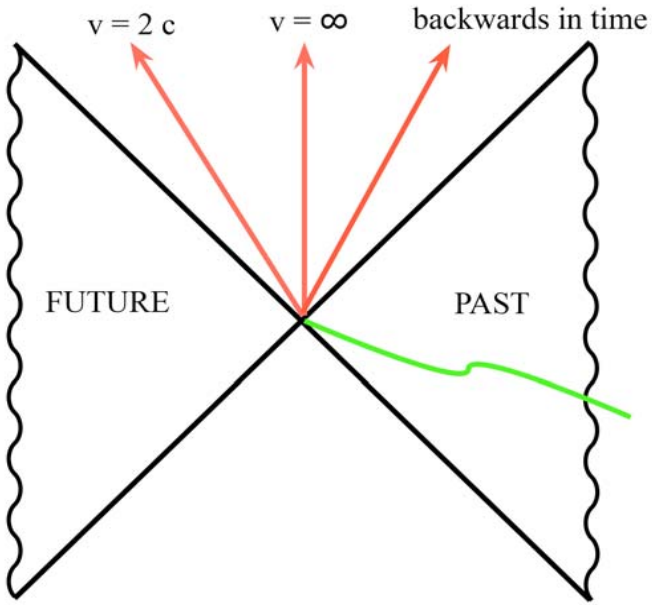
Principle of Radical Non-Duality		
Extrema	**Minimum**	**Maximum**
Space	$R = 0$	$R = \infty$
	Here	Everywhere
Time	$T = 0$	$T = \infty$
	Now	Forever
Velocity	$v = 0$	$\boldsymbol{v = \infty}$



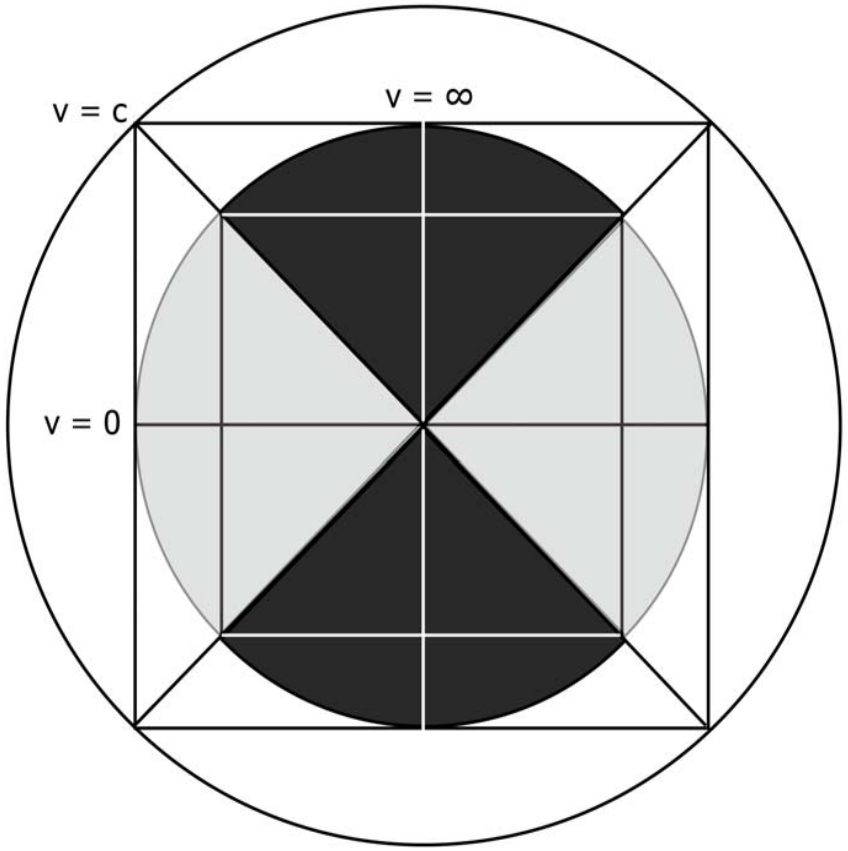
TRIPS INTO ELSEWHERE

The fourth Dimension
by Rudy Rucker
p. 158

Mandala – in toto



TRIPS INTO ELSEWHERE



Time is absolute, if $v = \infty$ is physically realized.

Time is relative, if $v = \infty$ is physically excluded.

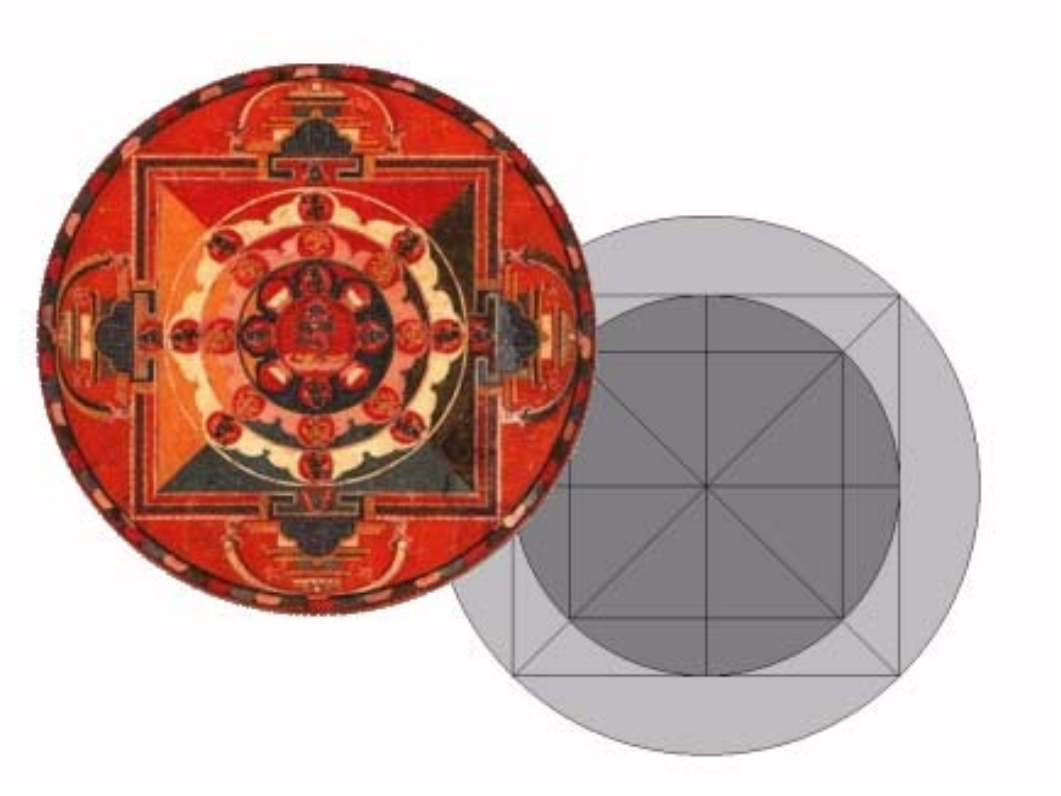
Wolfgang Pauli (1900 – 1958)

Pauli, W., Jung, C.G. (2001): Atom and Archetype, The Pauli/Jung Letters, 1932-1958, ed. C.A. Meier, Princeton, Univ. Press,

K.A. Mueller's inspiration

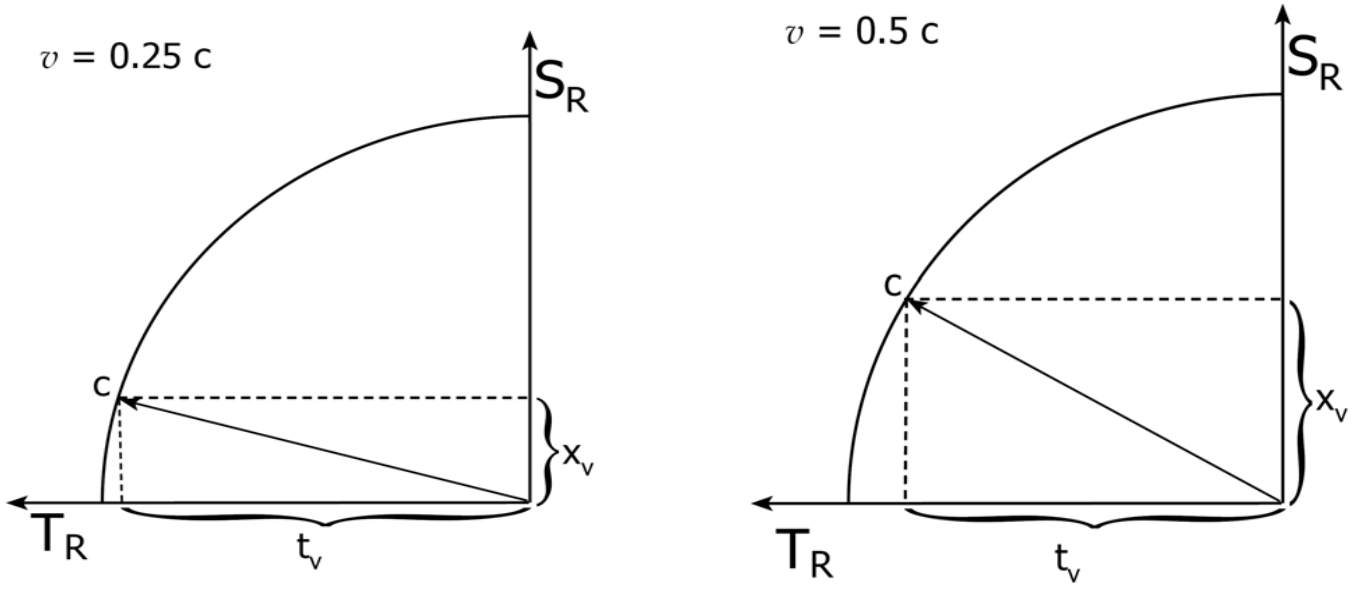
How a Scientific Discovery is Made: A Case History (American Scientist 84 July-August 1996) 364-375), by Gerald Holton, Hasok Chang and Edward Jurkowitz:

The Geometry of a Mandala



Mandala (मण्डल) is a Sanskrit word that means "circle". In common use, it has become a generic term for a geometric pattern that represents the cosmos metaphysically.

Spacepropertime Diagrams

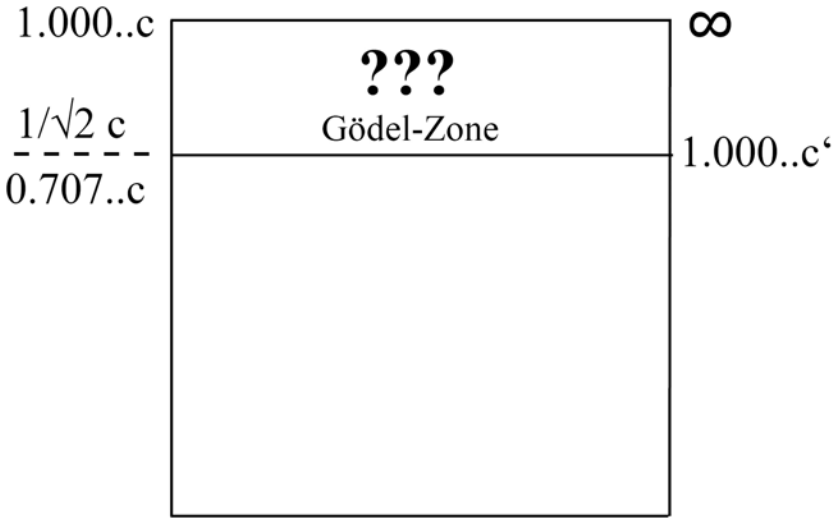


$$(x_v)^2 + (t_v)^2 = 1$$

Two Views of Special Relativity

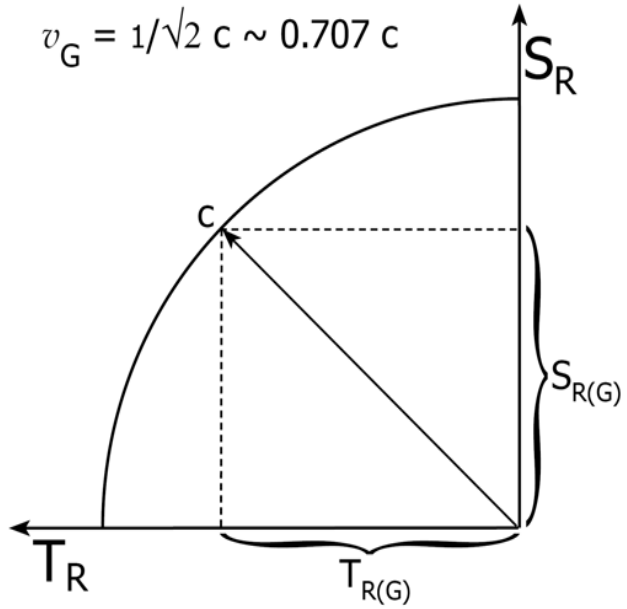
Einstein's view:	Epstein's view:
$t' = t\gamma;\ \gamma = \frac{1}{\sqrt{1-\frac{v^2}{c^2}}}$	$c = 1;\ (x_v)^2 + (t_v)^2 = 1$
$v = 0.5\ c\ ;\ \gamma = 1.15$	$(t_v)^2 = 1 - (x_v)^2$
	If $x_v = 0.5$, then $t_v = 0.86$;
	$t' = t/t_v = 1 : 0.86 = 1.15$
$t' = 1.15$	$t' = 1.15$

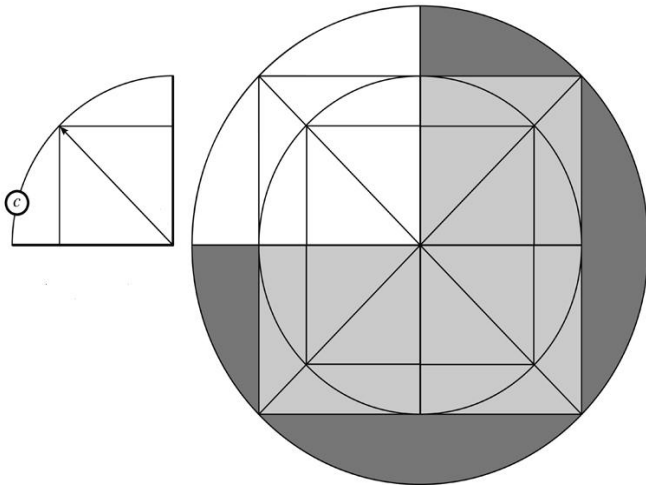
The Missing Link



A Remark About the Relationship between Relativity Theory and Idealistic Philosophy, Kurt Gödel in: Albert Einstein: Philosopher-Scientist, Paul A. Schilpp, p. 561

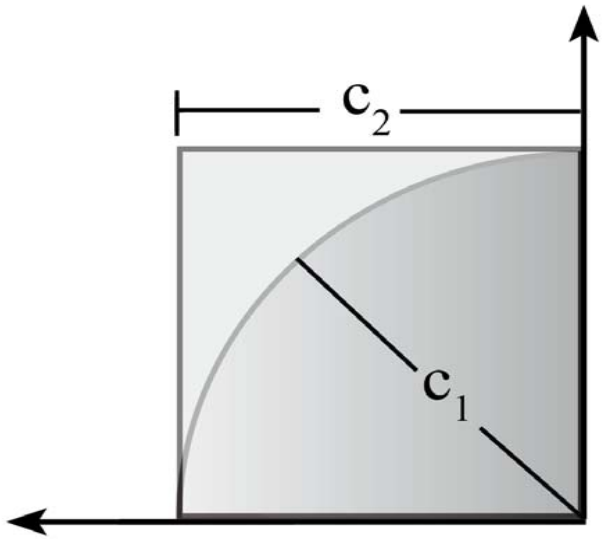
Spacetime at the Gödel-Point





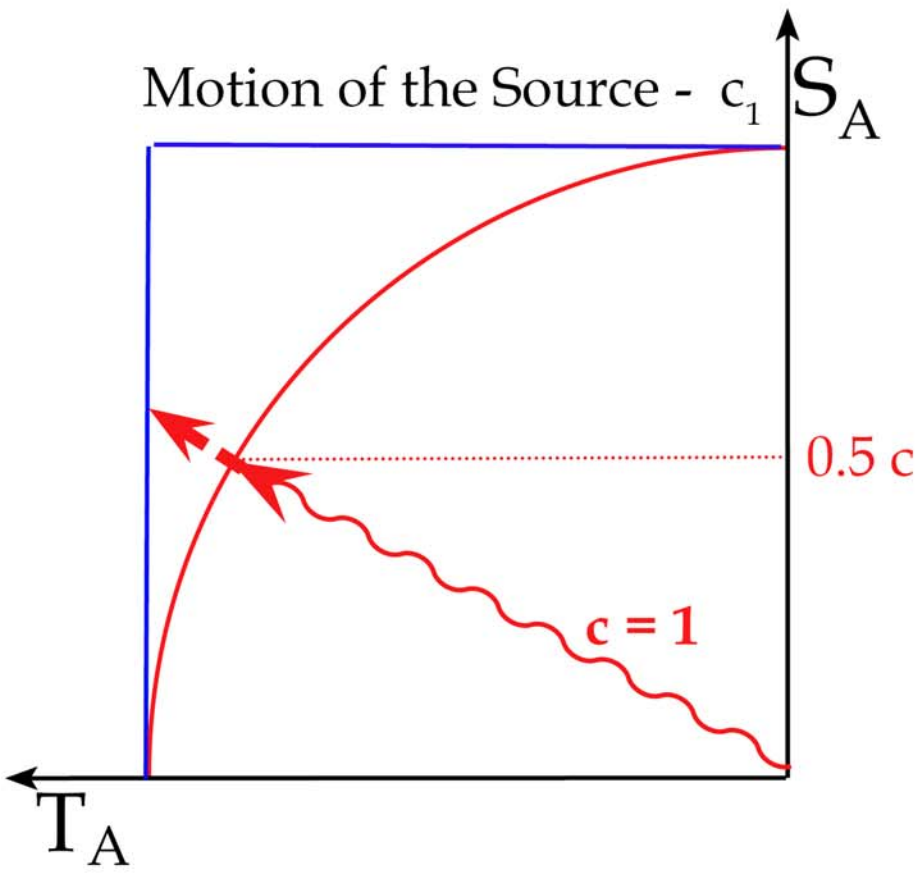
$$(0.707)^2 + (0.707)^2 = 1$$

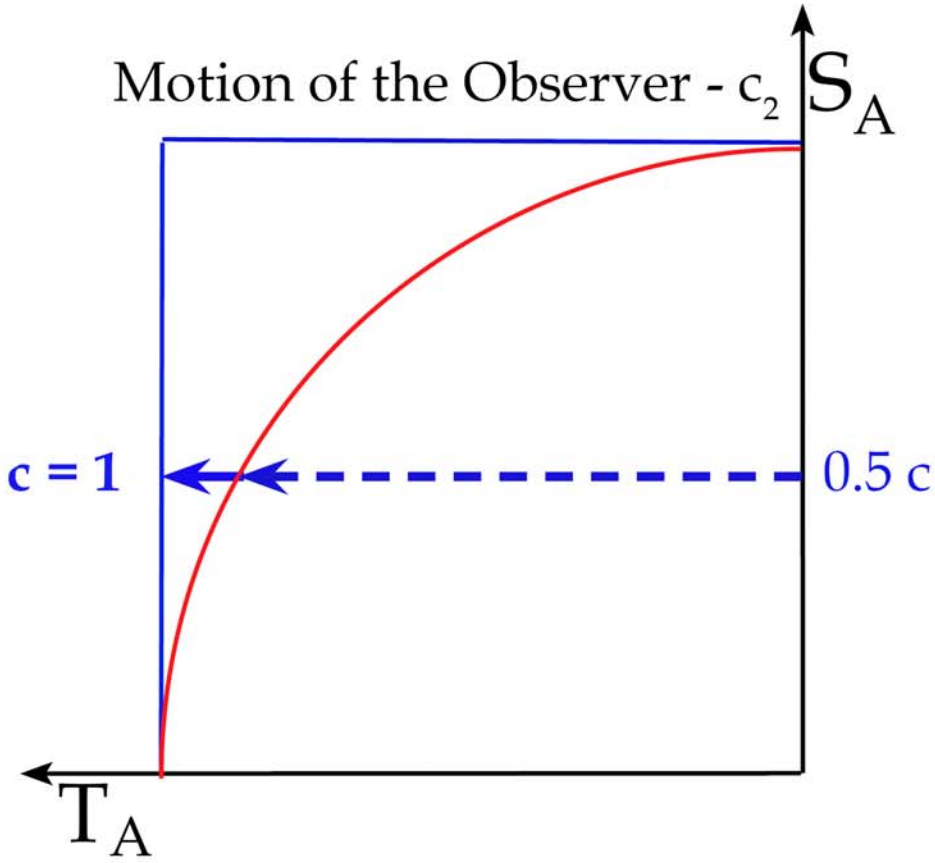
The MA_0-Blueprint



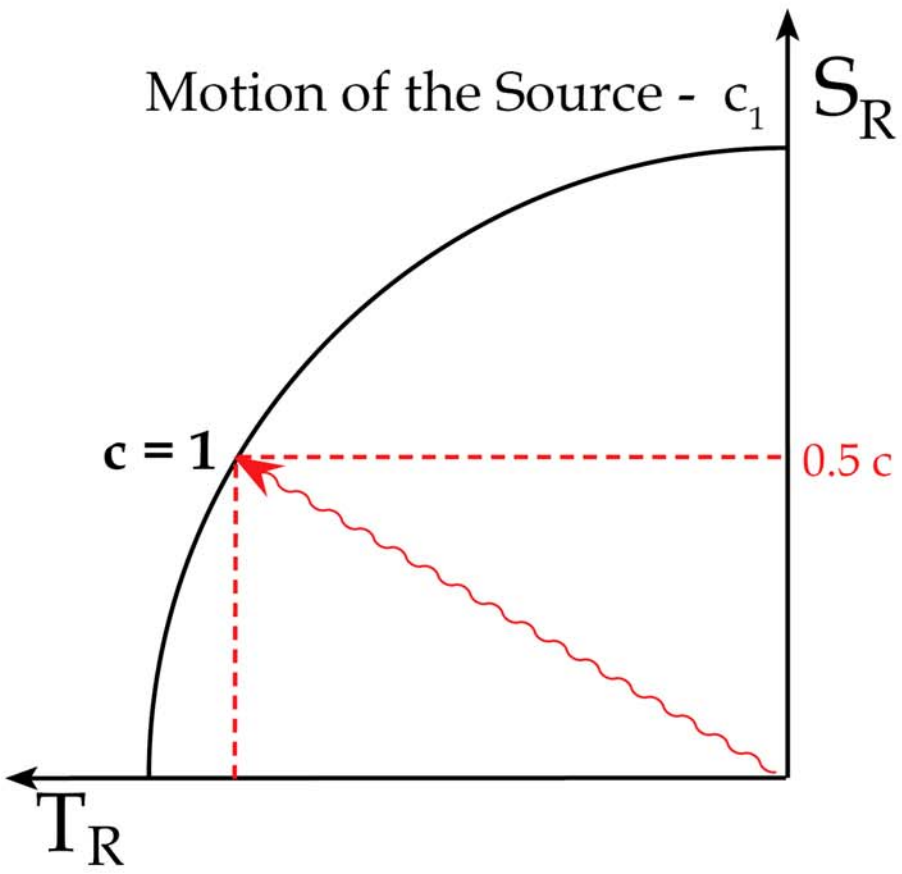
$$c_1 = c_2 = c = 1$$

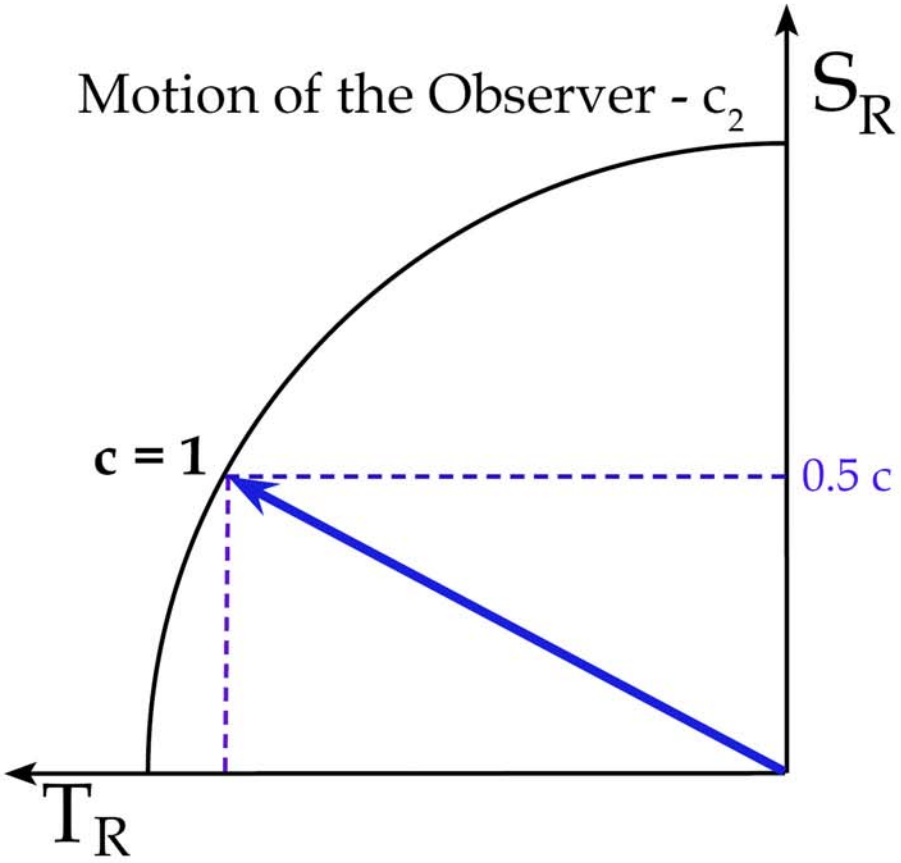
The Two Faces of c



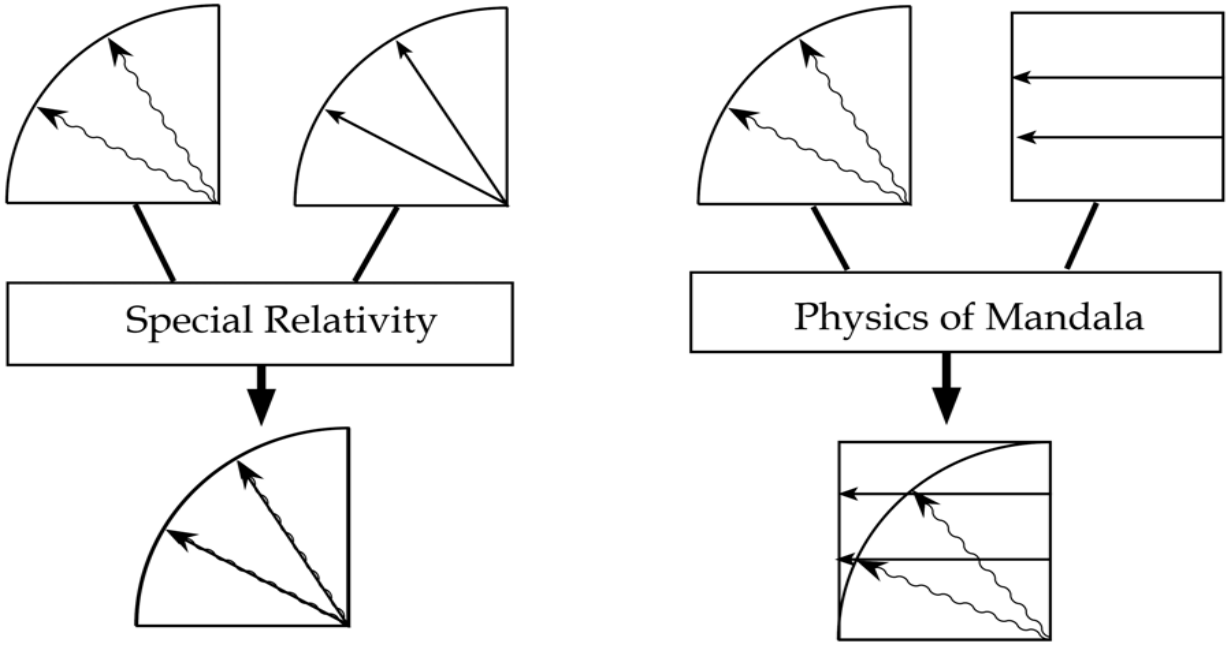


The Relativistic View

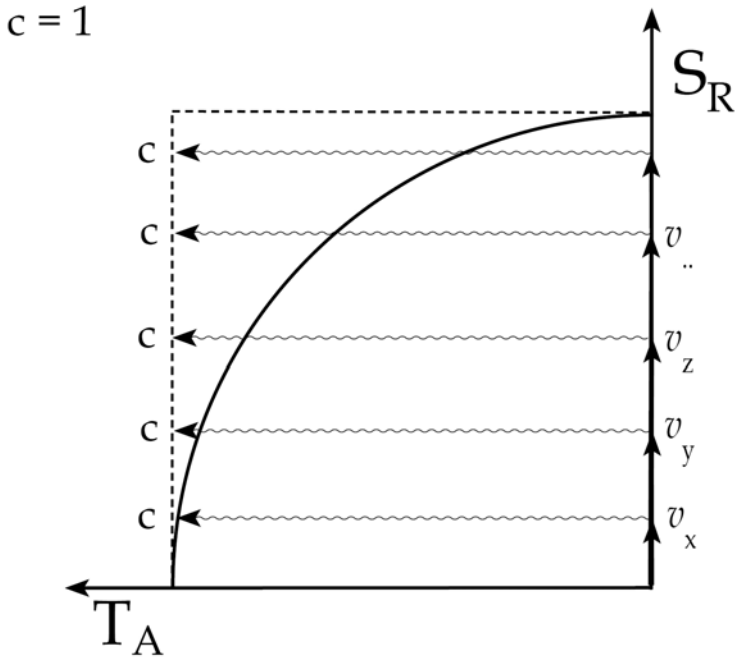


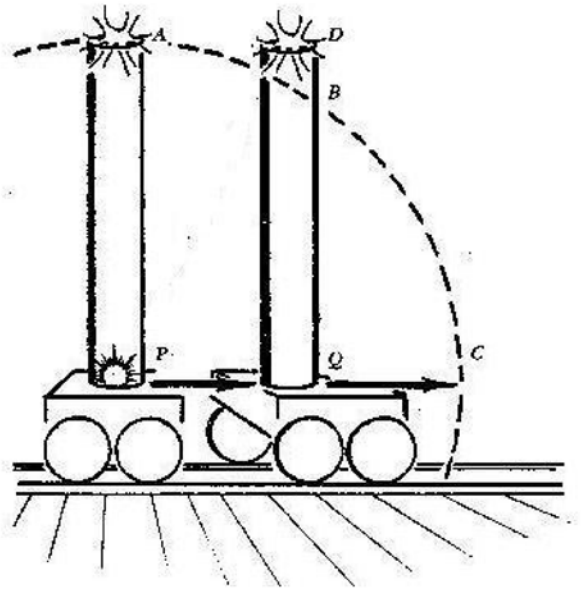


Unity vs. Complementarity



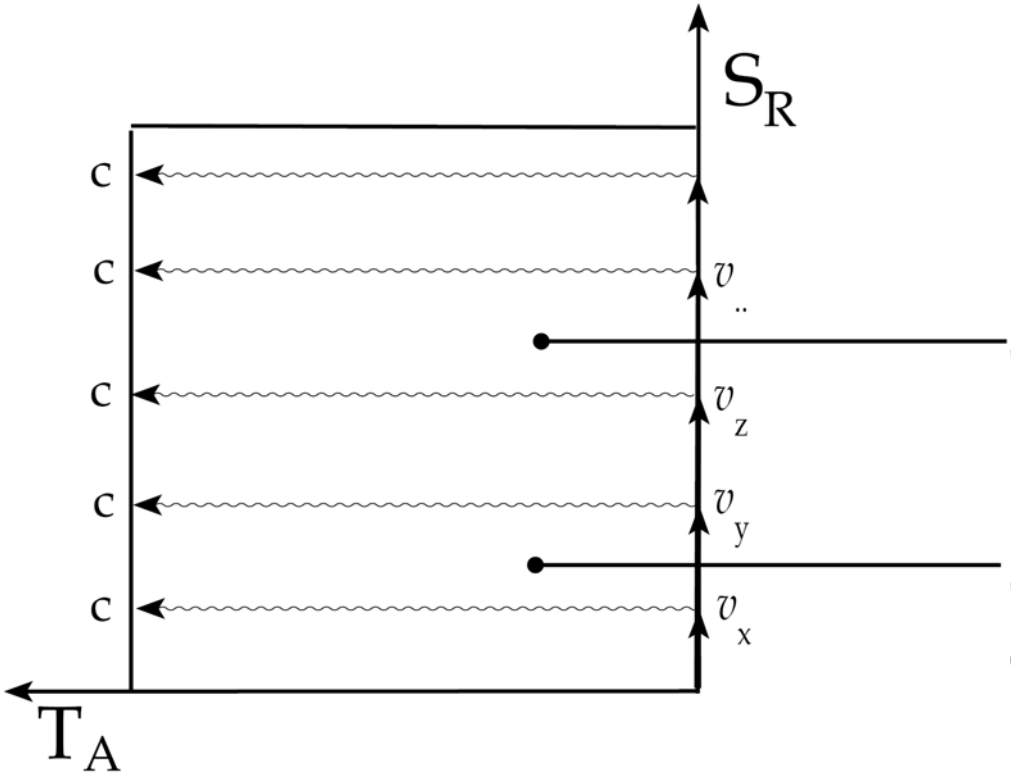
Galileo's Principle of Relativity





«Relativity Visualized»
By Lewis C. Epstein
p. 64

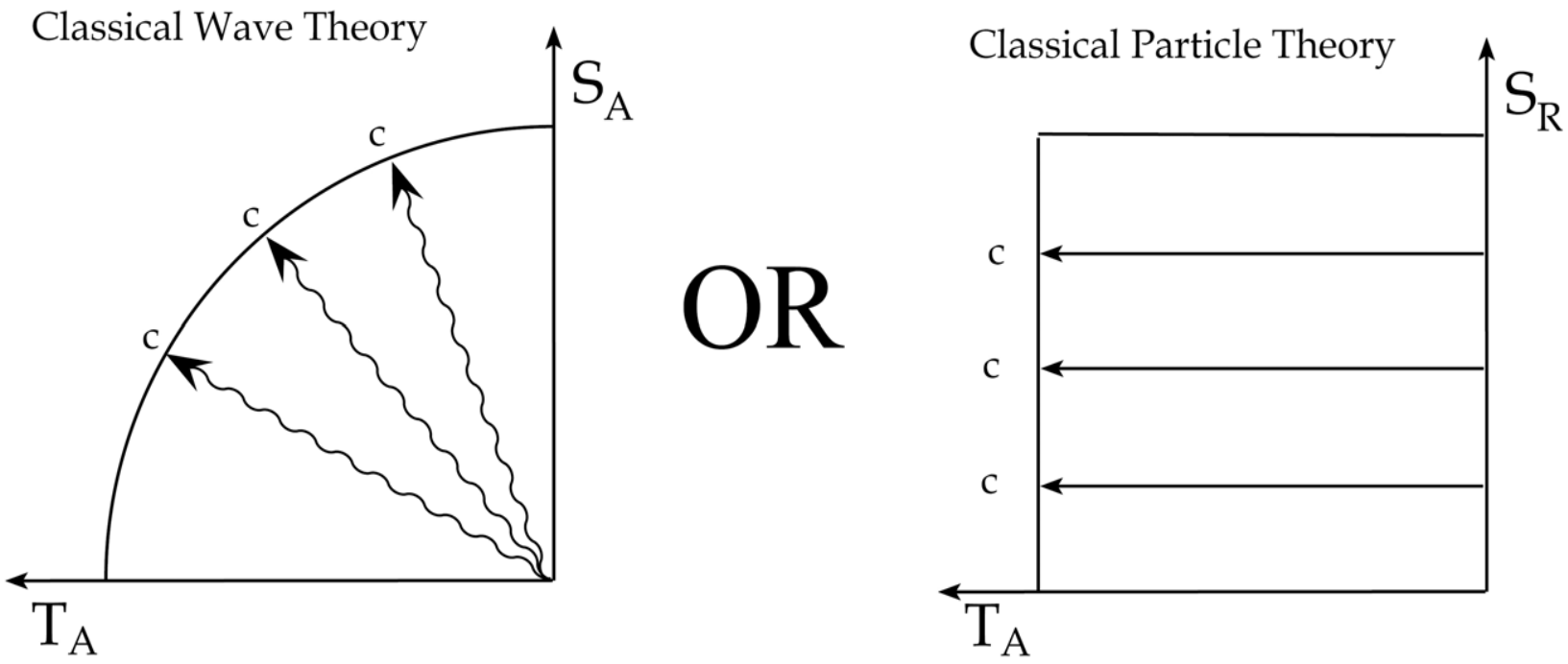
Exclusion of the Square



First Argument against the Square:
The Constancy of Light c depends on the Velocity of its Source.

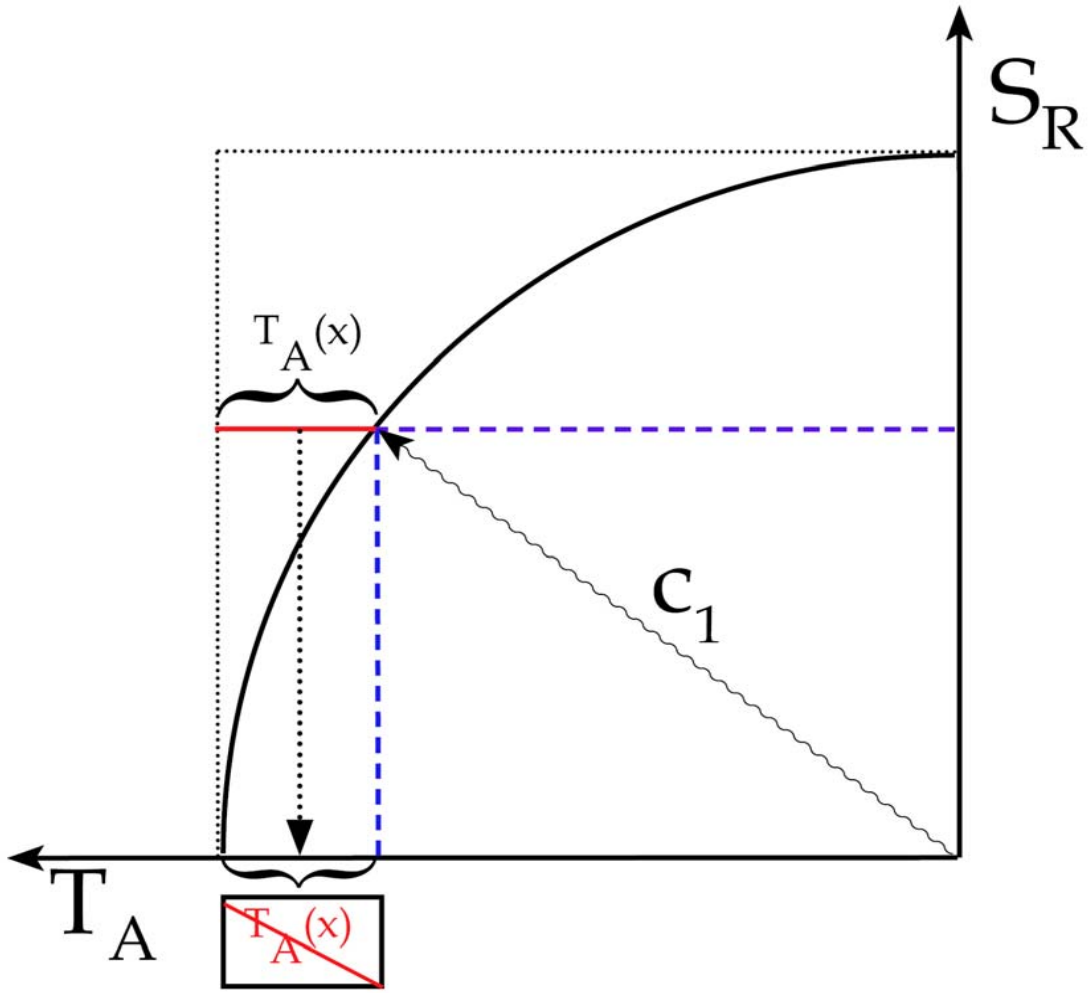
Second Argument against the Square:
The Square is connected with the Galilei Transformation.

Circle or Square?

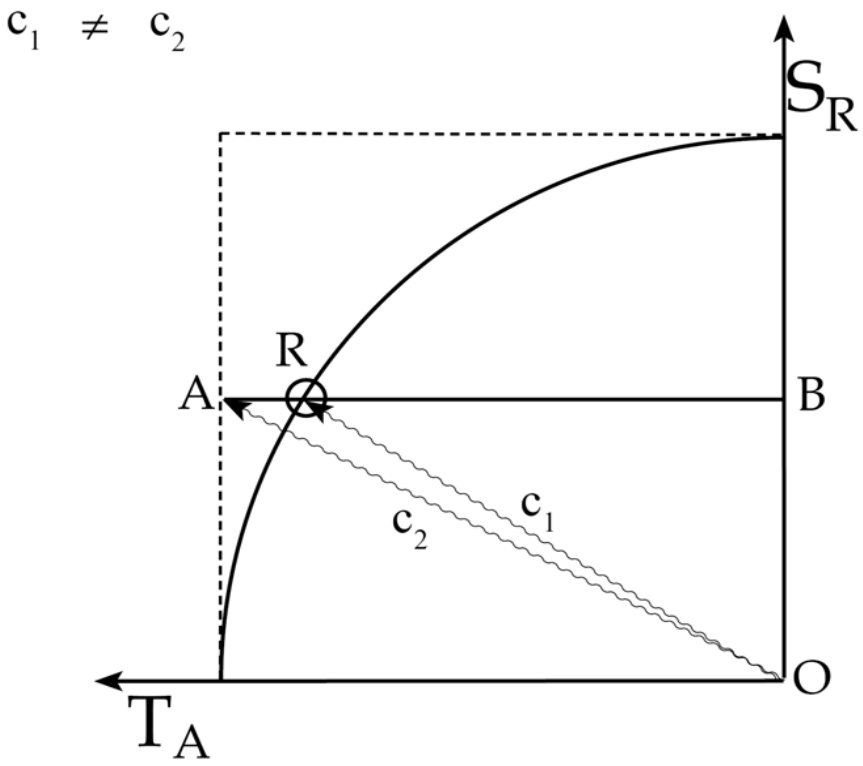


The Relativity of Time

(Einstein's Solution)



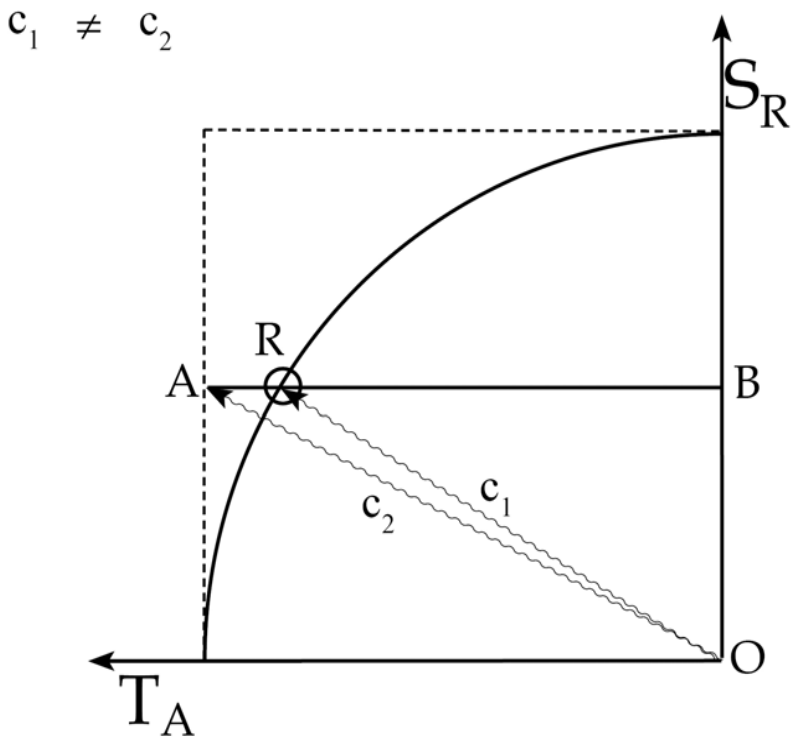
The apparent Contradiction

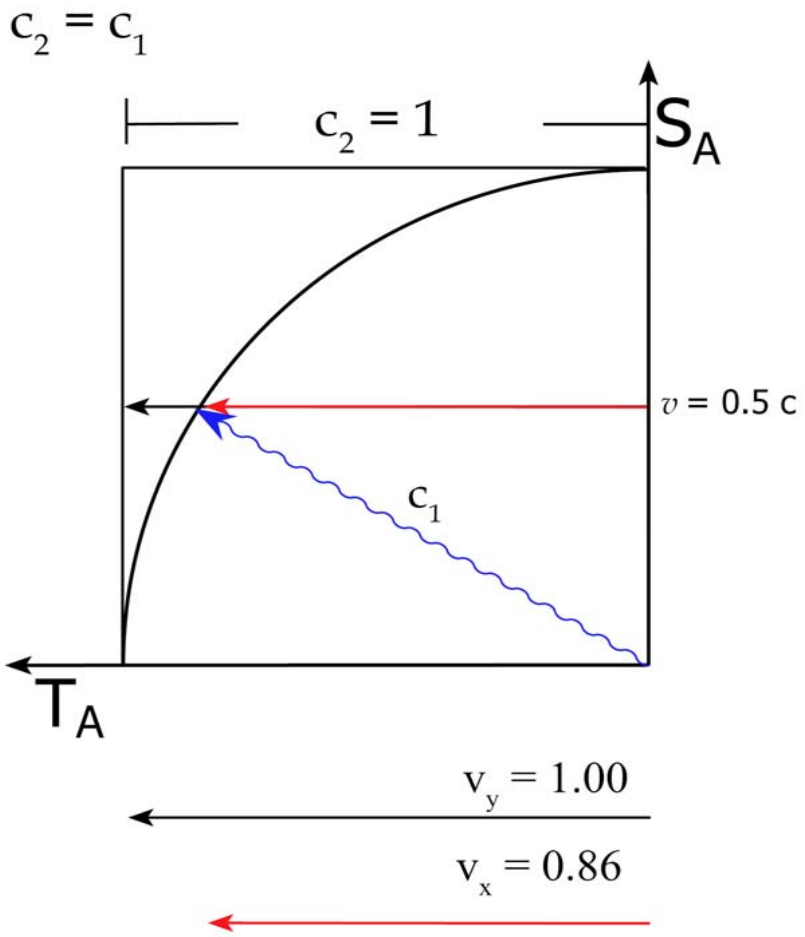


We will raise this conjecture (the purport of which will hereafter be called the Principle of Relativity to the status of a postulate, and also introduce another postulate, which is only **apparently irreconcilable** with the former, namely, that light is always propagated in empty space with a definite velocity *c* which is independent of the state of motion of the emitting body.

ON THE ELECTRODYNAMICS OF MOVING BODIES, by A. Einstein; June 30, 1905

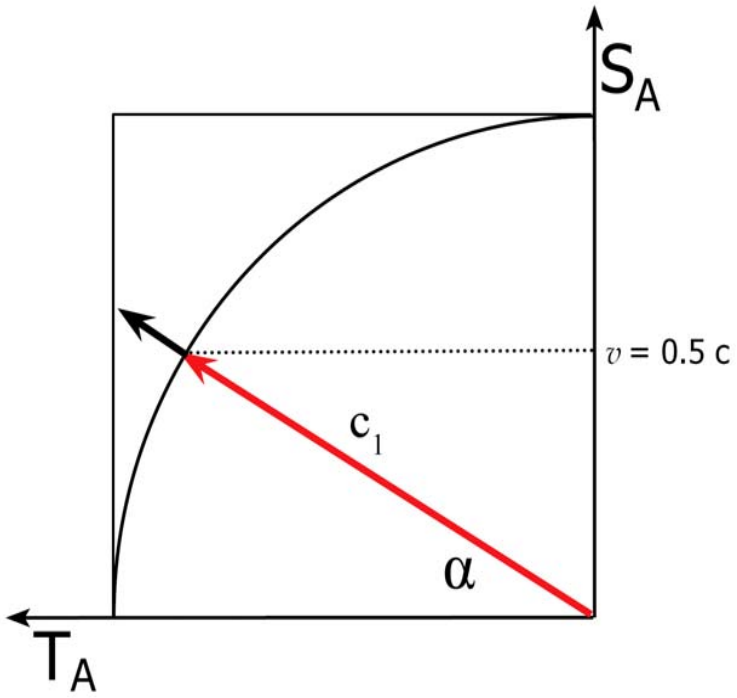
...but there is no Contradiction!





$v_y : v_x = 1.15; \gamma = 1.15$

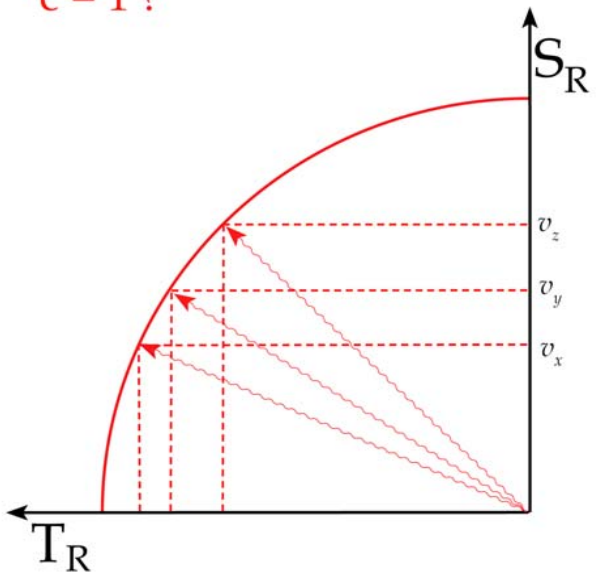
First Face of c = No Contradiction



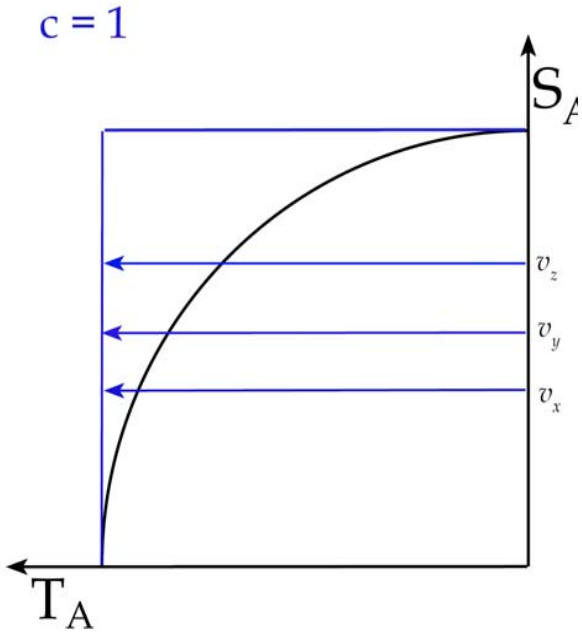
$v_y : v_x = 1.15; \gamma = 1.15$

Kennedy-Thorndike Experiment

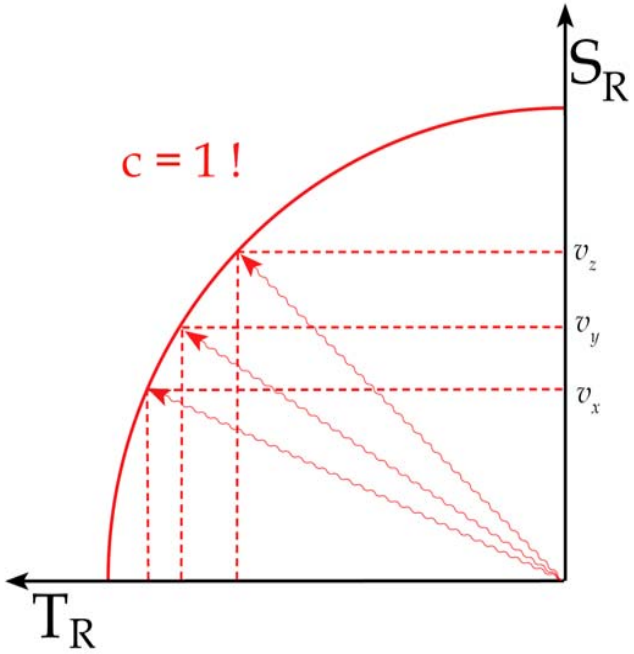
The Question



The Answer of Nature

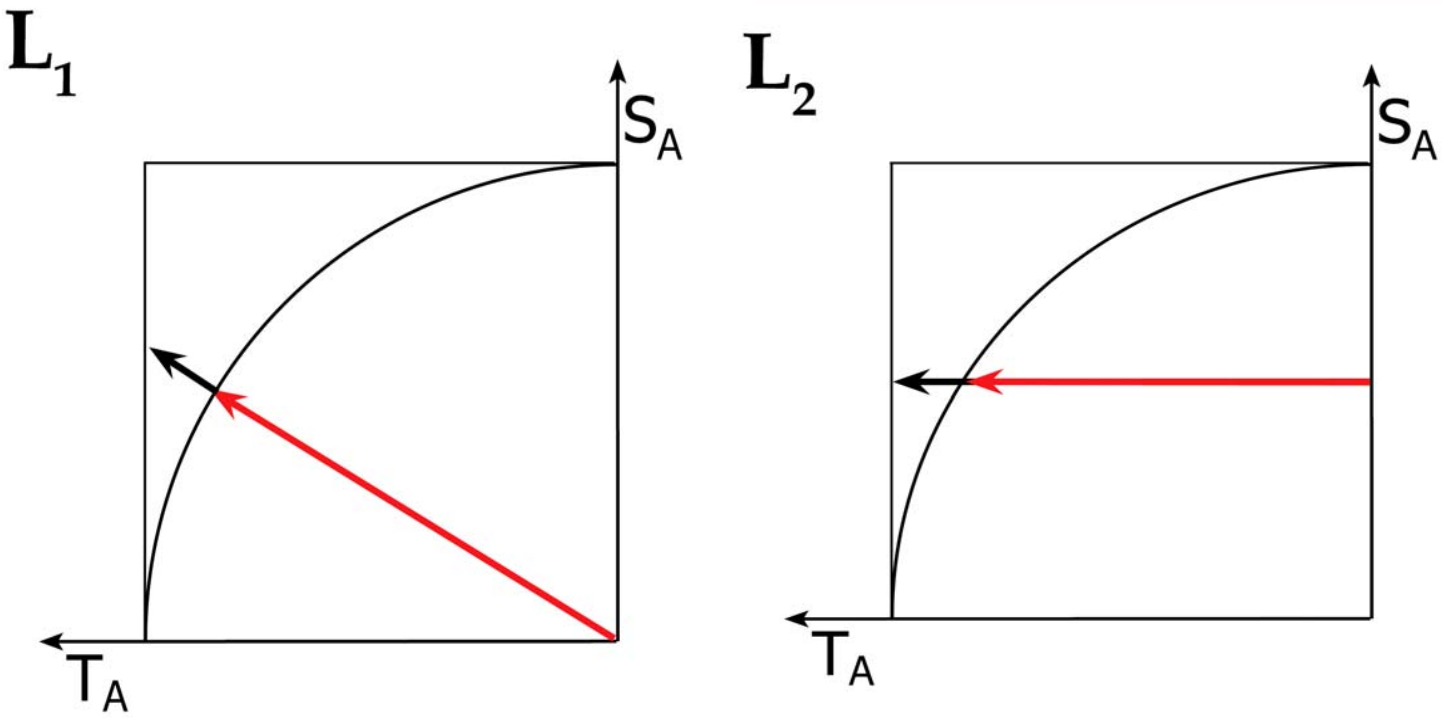


The wrong Conclusion



The Two Types of Lorentz-Transformation

Transformation	Square	Circle	γ
Type One – L_1	1.15	1	1.15
Type Two – L_2	1	0.86	1.15

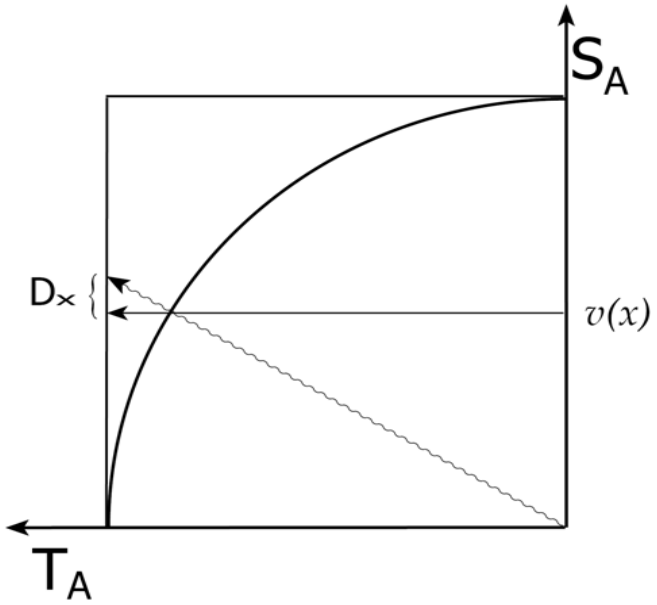


Classical Expectations

$$c + v = c + D(v)$$

Given : v (Earth) = 30 km/s
Expected : D(v) = 30 km/s
Measured : D(1887) ≤ 8 km/s

The MetaEther-Drift



v (x)	D(x)
30 km/s	0.000015 km/s
300 km/s	0.0015 km/s
3000 km/s	0.15 km/s

The Gödel-Point – A Stargate?