

« »

$T_1 = 1/f_1$   
(  $T_2$  )

### Physical essence of time and long-range or short-range interaction

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#### Annotation

Whitehead's concept of "everything that happens in the world is because of processes" allowed to substantiate that the physical essence of time lies in the moment of birth of a process - this is the first period  $T_1 = 1/f_1$  of the process with which it is born, all that is before the phase transition (new time is born  $T_2$ ) in the process is its duration.

Keywords: time, imaginary time, process time quantum, time irreversibility, actual infinity, long-range, time dilation

( )

1. 2,5  
« » [1]

2. « »

« »  
[2]  $f = 1/T$   $T -$  ( )

1. ( ) [3].  
 $T_p$

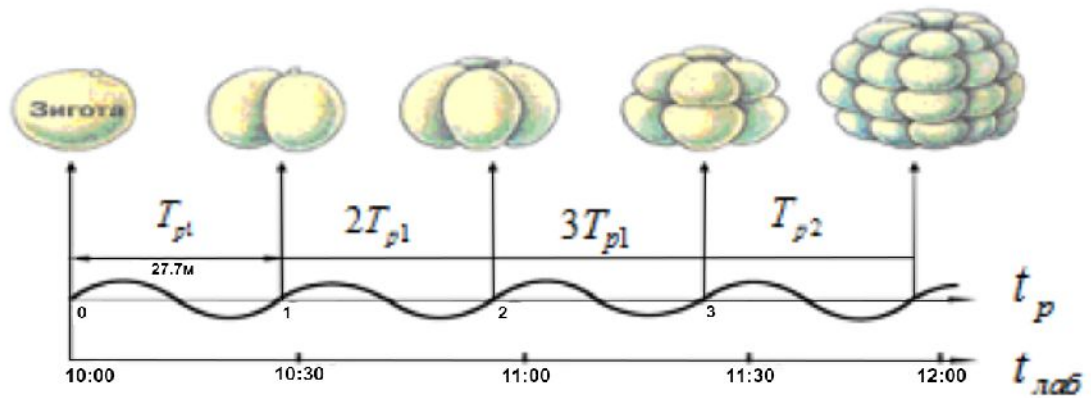


Рис.1. Основные моменты времени на примере митоза эмбриона лягушки

0,46 : 13 6  
 ( )  $T_p$  ,  $T_p =$   
 27,7 .  $T_p \geq 27,7$  -

$T_p -$  ( ) -  
 $t -$  ( ) ;  
 1, 2, 3, ..., n - ;  
 $t_p = nT_p -$  ( ) ;  
 n - 1 2  $t_p$   
 $2T_p$  ( )

2, 3, 4 - , ( )  
 «  
 :  
 » [4].

- ( ) -  
 ( ) , ( )  
 , 1, 2, 3 ( )  
 ) ( )

$4T_p$ .

$t_p$

[ . 1]

$T_{p1} = 1/f_{p1}$

$3t_{p1} (3t_{p1} -$

$) T_{p2}$

$v = ds/dt$

( [6]

« »

$dN/dt = -\lambda N$

$dN/dt = -\omega\sigma\varphi N$ ,  $\sigma$  -  $\omega$

,  $\varphi$  -

$\beta$  -

$\gamma - \alpha -$

$\lambda = \omega\sigma\varphi$

[2]

1.

2.

3.

4.

5.

6.

7.

8.

$v$

(  $v=0$  )

$$S \rightarrow -S \quad ( \quad )$$

$$-S = vt \rightarrow S = -vt .$$

$$S = -vt = -S = vt \quad v .$$

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[5]

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( ):

$x_2 \& x_1$

$$x_2 - x_1 = c(t_2 - t_1)$$

$\Delta s$

« – » ( . 2)

$$(\Delta s)^2 = (c\Delta t)^2 - (\Delta x)^2 = 0 \quad (1)$$

$(x=0, t=0)$

$x_2 \& x_1$

« c » -

$t_1 \quad t_2$ ,

« » -

( ) ,

$$(x_2 - x_1) = 0,$$

$x_1 \& x_2$

$(t_2 - t_1)$

$$s = c(t_2 - t_1),$$

$Ox$ .

$$, s = c(t_2 - t_1)$$

$ds/dt$

$$t_p = (ct)' = c$$

( . 2)

$t = 0,$

$Ox,$

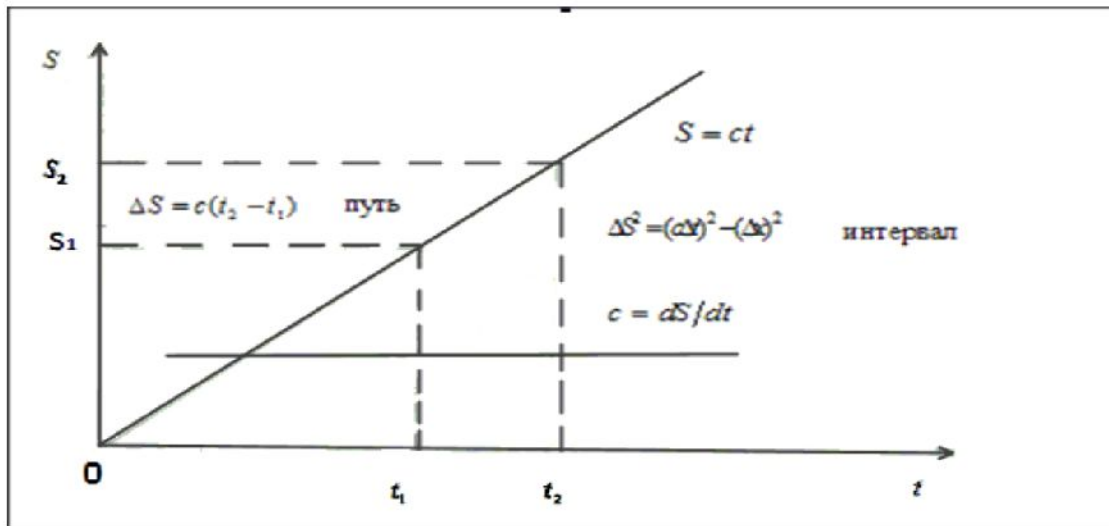


Рис. 2. Пояснения к вопросу дальноедействие/близкодействие

$c$

$$\Delta t' = \Delta t \sqrt{1 - v^2/c^2} \quad (2)$$

$\Delta t$  — « »

(2)  $\Delta t'$

(

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«

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$t = R/c.$

$R$

$v$

$v$

T. Davis

(

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1. . . . « » 1975
2. . . . « » 2015
3. . . . 10-11 . - 2005 .
4. . . . « » 1987 .
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