Теория принятия решений

Лекция 1. Теория решений.docx

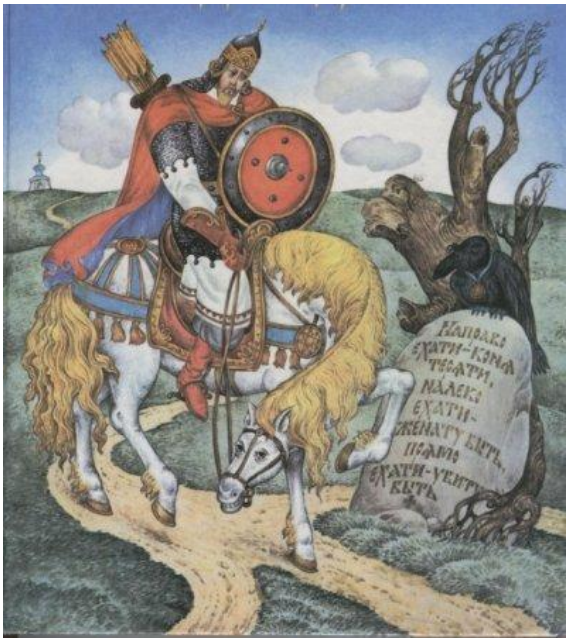
1.

, , , () . , , , , - . , , .

: . , , , , , , . , , .

: , , , , , . , .

, , (,), , , , , , , , () . , , . .



: , : " - , - , - ". , , , . , , , , , .

, . , .

, ( ) , , . , , , .

, . , .

2.

:

A $a \in A$; - , – , .
$r \in R$, A.

, , , R A, , , . a, - , .

Ω - ( ) $\theta \in \Omega$. θ - , . “” , . , Ω , θ _ , .

, : $r = r(a,\theta)$.

$I = I(r)$. , . , , : $I_{cp} = \frac{\int I(r)dr}{\int dr}$.

: [1] , , . :

, .

, *10.*

, *5,* , .

, *0.25,* :

: 5

: $0.25 * 10 + 0.75 * 0 = 2.5$

3.

, . , θ. , θ, θ [2]. , . , , , , , .

( ) $x \in X$. , () $f(x|\theta)$, $\theta \in \Omega$.

, .

D - ( ) c *s* , *A* : $a = s(x)$. s , , – .

, : $R(\theta,s) = \int l(\theta,s(x))f(x \mid \theta)dx$. , , .

: , . .

, . :

1. , .
2. , .
3. , .
4. .

, , $f(x \mid \theta)$:

(θ)	*(x = 0)*	***1*** *(x = 1)*	***2*** *(x = 2)*
1	*0*	*0*	*1*
0.75	*0.0625*	*0.375*	*0.5625*
0.5	*0.25*	*0.5*	*0.25*
0.25	*0.5625*	*0.375*	*0.0625*
0	*1*	*0*	*0*

. ( ):

(θ)	*(x = 0)*	***1*** *(x = 1)*	***2*** *(x = 2)*
1	*5, 10, 10, 10*	*5, 5, 10, 10*	*5, 5, 5, 10*
0.75	*5, 7.5, 7.5, 7.5*	*5, 5, 7.5, 7.5*	*5, 5, 5, 7.5*
0.5	*5, 5, 5, 5*	*5, 5, 5, 5*	*5, 5, 5, 5*
0.25	*5, 2.5, 2.5, 2.5*	*5, 5, 2.5, 2.5*	*5, 5, 5, 2.5*
0	*5, 0, 0, 0*	*5, 5, 0, 0*	*5, 5, 5, 0*

, , :

, *0.5,* . , . - .

[1] .

[2] , , , . , . [ ]