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[1].

[2],

[1],

( ).

[3].

N

« »  $s_i = +1$  ( )  $s_i = -1$  ( [2]

$$e = \frac{E_0}{\omega_1} = -H \sum_{i=1}^N S_i - \sum_{i=1}^{N-1} S_i S_{i+1} - J_2 \sum_{i=1}^{N-2} S_i S_{i+2}, \quad (1)$$

e – ( , H – ),  $E_0$  – ,  $J_1$  –  
 ,  $J_2 = \omega_2 / \omega_1$  –  
 $\omega_1 > 0$ ,  $\omega_2$  – ( )

[2]

$$\xi \propto (T - T_C)^{-\nu} \quad (2)$$

),  $T = 0$ ,  $B_1 = B_2$ .

$$\xi_1 = B_1 T_1^{-\nu}, \quad \xi_2 = B_2 T_2^{-\nu} \quad (3)$$

$B_1 = B_2$ ,  $T$ ,

[4].  $P(S)$  [1]  $s$

$$P(S) = \frac{\exp\left(-\frac{e_s}{J_2}\right)}{Z} \quad (4)$$

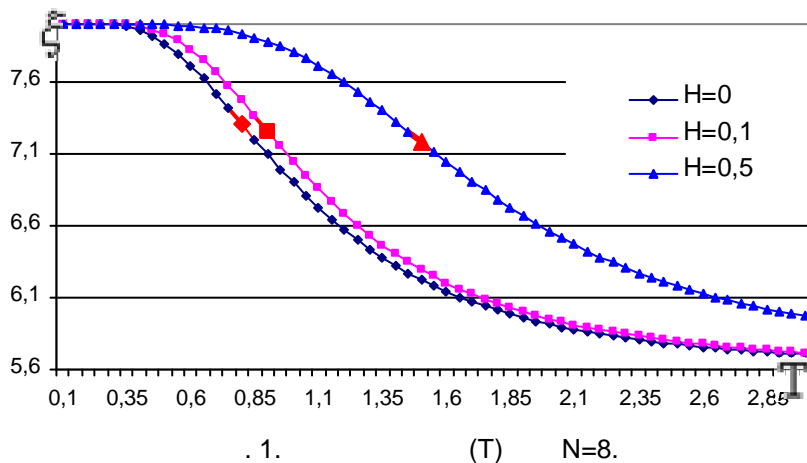
$$Z = \sum_s \exp\left(-\frac{e_s}{J_2}\right) \quad (5)$$

$= k_B T / J_2$ ,  $Z$ ,  $T$ ,  $k_B$

$$\xi = \xi_1 P_1 + \xi_2 P_2 + \dots + \xi_S P_S \quad (6)$$

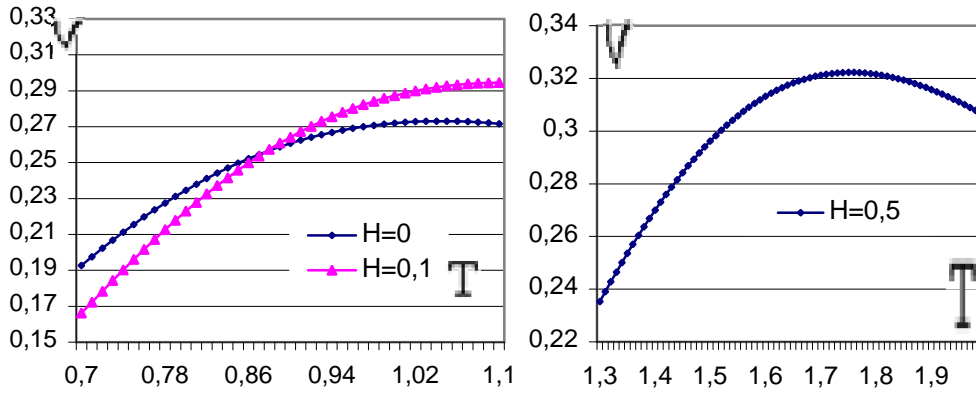
(3)  $T_2 = T_1 + dT$ ,  $dT = 0,00001$  ( $T_1$ ) ( $T_2$ ),  $dT = 0,00001$ .

(T) ( . 1.).



(.1, ). (3), T.

(.2.), (T)=const.



.2. (T) N=8.

« » -  
N.

(T) - (T)

N=8-10

0,27.

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