

2. ANSYS: «...», 1993. 3. «...», 2002. 4. «...», 2003.

1. «...», 1971.

629.78

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$$\begin{cases} \}_0(t) = \cos P_1(t) \\ \}_1(t) = \sin P_1(t) \sin P_2(t) \\ \}_2(t) = \sin P_1(t) \cos P_2(t) \sin P_3(t) \\ \}_3(t) = \sin P_1(t) \cos P_2(t) \cos P_3(t), \end{cases} \quad (1)$$

$$P_i(t) = k_i t + \text{E}, \quad i = 1, 2, 3, \quad (1)$$

$$\frac{d}{dt} ](t)$$

$$\check{S} = 2\check{J}(t) \circ \frac{d}{dt} \check{J}(t).$$

$$\check{S}_i \quad [t_{n-1}, t_n]$$

$n_i, i = 1, 2, 3.$

$$k_i \quad \mathbb{E}_i \quad (1)$$

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 . . . . ., 1973. 320 .

681.3

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CAD/CAE

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(freeware) CAD/CAE

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