Поиск коэф-в $a_0, \dots, a_5$:

$$s(t) = a_0 + a_1 t + a_2 t^2 + a_3 t^3 + a_4 t^4 + a_5 t^5$$

$$\dot{s}(t) = a_1 + 2a_2 t + 3a_3 t^2 + 4a_4 t^3 + 5a_5 t^4$$

$$\ddot{s}(t) = 2a_2 + 6a_3 t + 12a_4 t^2 + 20a_5 t^3$$

Ограничения:

(1) $s(0) = \dot{s}(0) = \ddot{s}(0) = 0$

(2) $s(T) = 1, \ \dot{s}(T) = \ddot{s}(T) = 0$

$$(1) \Rightarrow \begin{cases} a_0 = 0 \\ a_1 = 0 \\ a_2 = 0 \end{cases}$$

$$(2) \Rightarrow \begin{cases} a_3 T^3 + a_4 T^4 + a_5 T^5 = 1 \\ 3a_3 T^2 + 4a_4 T^3 + 5a_5 T^4 = 0 \\ 6a_3 T + 12a_4 T^2 + 20a_5 T^3 = 0 \end{cases}$$

$$\begin{cases} T^3 (a_3 + a_4 T + a_5 T^2) = 1 \\ 3a_3 + 4a_4 T + 5a_5 T^2 = 0 \\ 6a_3 + 12a_4 T + 20a_5 T^2 = 0 \end{cases}$$

$$4a_4 T + 10 a_5 T^2 = 0$$

$$4a_4 + 10 a_5 T = 0$$

- $a_4 = -\frac{10}{4} \cdot a_5 T = -\frac{10}{4} \cdot \frac{6}{T^5} \cdot T = -\frac{15}{T^4}$

$$-3a_3 + 5 a_5 T^2 = 0$$

- $a_3 = \frac{5}{3} \cdot a_5 T^2 = \frac{5}{3} \cdot \frac{6}{T^5} \cdot T^2 = \frac{10}{T^3}$

$$T^3 \left(\frac{5}{3} \cdot a_5 T^2 - \frac{10^{5}}{4_{2}} \cdot a_5 T^2 + a_5 T^2 \right) = 1$$

$$T^3 \left(10 a_5 T^2 - 15 a_5 T^2 + 6 a_5 T^2 \right) = 6$$

$$T^3 \cdot a_5 \cdot T^2 = 6$$

- $a_5 = \frac{6}{T^5}$