

T法の事例1-2

信号空間 (基準化)		$k=1$	$k=2$	$k=3$	$k=4$	$k=5$	$k=6$	特性値
		B温度	C温度	圧力1	圧力2	余熱時間	加工時間	歩留 M
$n=1$	1	X_{11} 0.0	X_{12} 44.5	39.0	46.5	-2.0	60.0	-0.0303 M_1
$n=2$	2	X_{21} 0.0	X_{22} 74.5	41.0	54.5	-1.0	0.0	-0.0159 M_2
$n=3$	3	X_{31} -5.0	X_{32} 49.5	33.0	43.5	0.0	0.0	-0.0155 M_3
$n=4$	6	X_{41} 2.0	X_{42} -13.5	9.5	4.0	-1.0	0.0	0.0094 M_4
$n=5$	7	X_{51} 7.0	X_{52} -7.0	4.5	3.0	-2.0	60.0	0.0489 M_5

$$\text{全変動 } S_{Tk} = X_{1k}^2 + X_{2k}^2 + X_{3k}^2 + \dots + X_{nk}^2$$

$$\text{全変動 } S_{T1} = 0.0^2 + 0.0^2 + (-5.0)^2 + 2.0^2 + 7.0^2 \rightarrow = \text{SUMSQ}(\text{O:O})$$

$$\text{全変動 } S_{T2} = 44.5^2 + 74.5^2 + 49.5^2 + (-13.5)^2 + (-7.0)^2 \rightarrow = \text{SUMSQ}(\text{O:O})$$

$$r = M_1^2 + M_2^2 + M_3^2 + M_4^2 + M_5^2 \rightarrow = \text{SUMSQ}(\text{O:O})$$

$$S_{\beta k} = \frac{(M_1 X_{1k} + M_2 X_{2k} + M_3 X_{3k} + \dots + M_5 X_{5k})^2}{r}$$

$$S_{ek} = S_{Tk} - S_{\beta k} \quad V_{ek} = \frac{S_{ek}}{n-1} \quad \beta_k = \frac{M_1 X_{1k} + M_2 X_{2k} + M_3 X_{3k} + \dots + M_5 X_{5k}}{r}$$

	$k=1$	$k=2$	$k=3$	$k=4$	$k=5$	$k=6$
有効除数 r	0.00389					
全変動 ST	78.0	10212.0	4401.5	7049.8	10.0	7200.0
S β	49.44	3651.77	1065.17	1965.63	0.24	320.11
Se	28.56	6560.23	3336.33	5084.12	9.76	6879.89
Ve	7.14	1640.06	834.08	1271.03	2.44	1719.97
β	112.73	-968.81	-523.23	-710.78	-7.89	286.84
η	1523.01	315.26	71.21	140.46	-231.50	-209.19
η^*	1523.01	315.26	71.21	140.46	0	0

$$\eta_k = \frac{1}{r} (S_{\beta k} - V_{ek})$$

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