



Title: Ausarbeitungen zur Programmierung des Schachspiels
Author(s): Konrad Zuse
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G

G

$$L = (Z, G, K)$$

$$\text{Zug}(L_1, L_2) \quad \text{für } L_1, L_2 \in L$$

$$G(L_1) \sim \left[\begin{array}{l} Z(L_1) \wedge \exists L_2 [\text{Zug}(L_1, L_2) \wedge G(L_2)] \\ \vee \overline{Z(L_1)} \wedge (L_2) [\text{Zug}(L_1, L_2) \rightarrow G(L_2)] \end{array} \right]$$

$$L = (Z, G, K)$$

$$Z = \text{...}$$

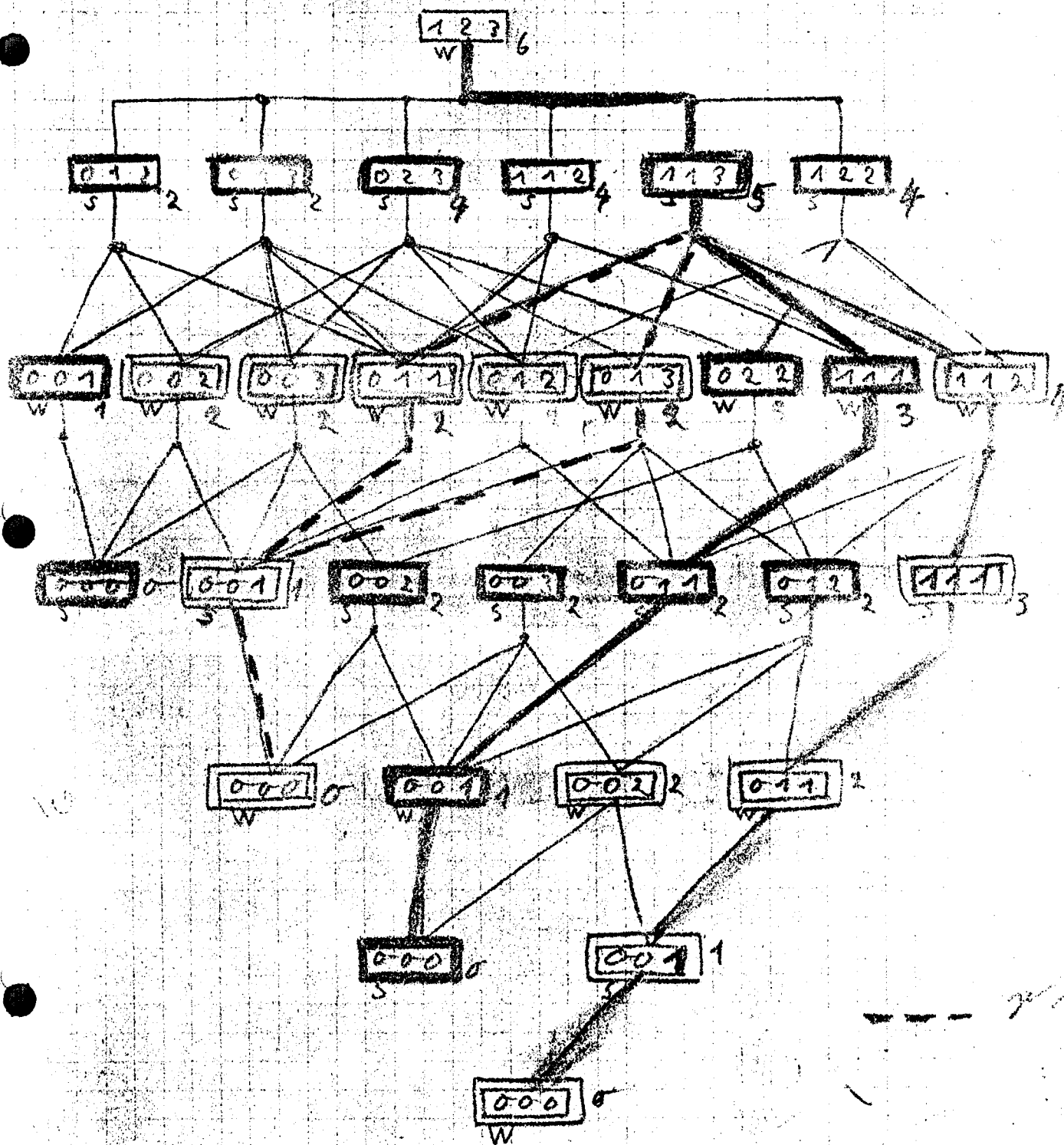
$$G = \begin{pmatrix} \hat{g} & \hat{g} \\ \bar{g} & \bar{g} \end{pmatrix}$$

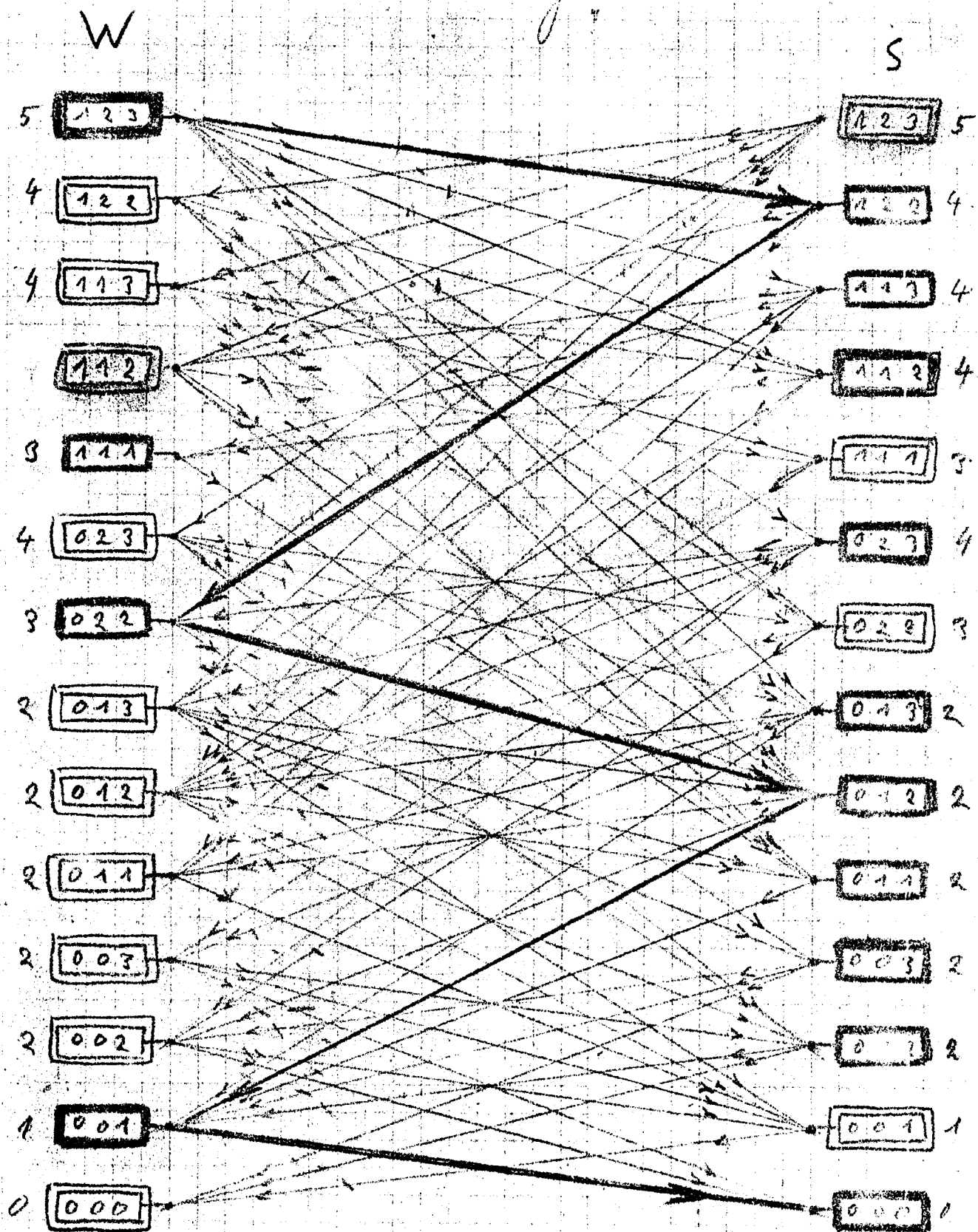
$$\hat{g} \hat{g}$$

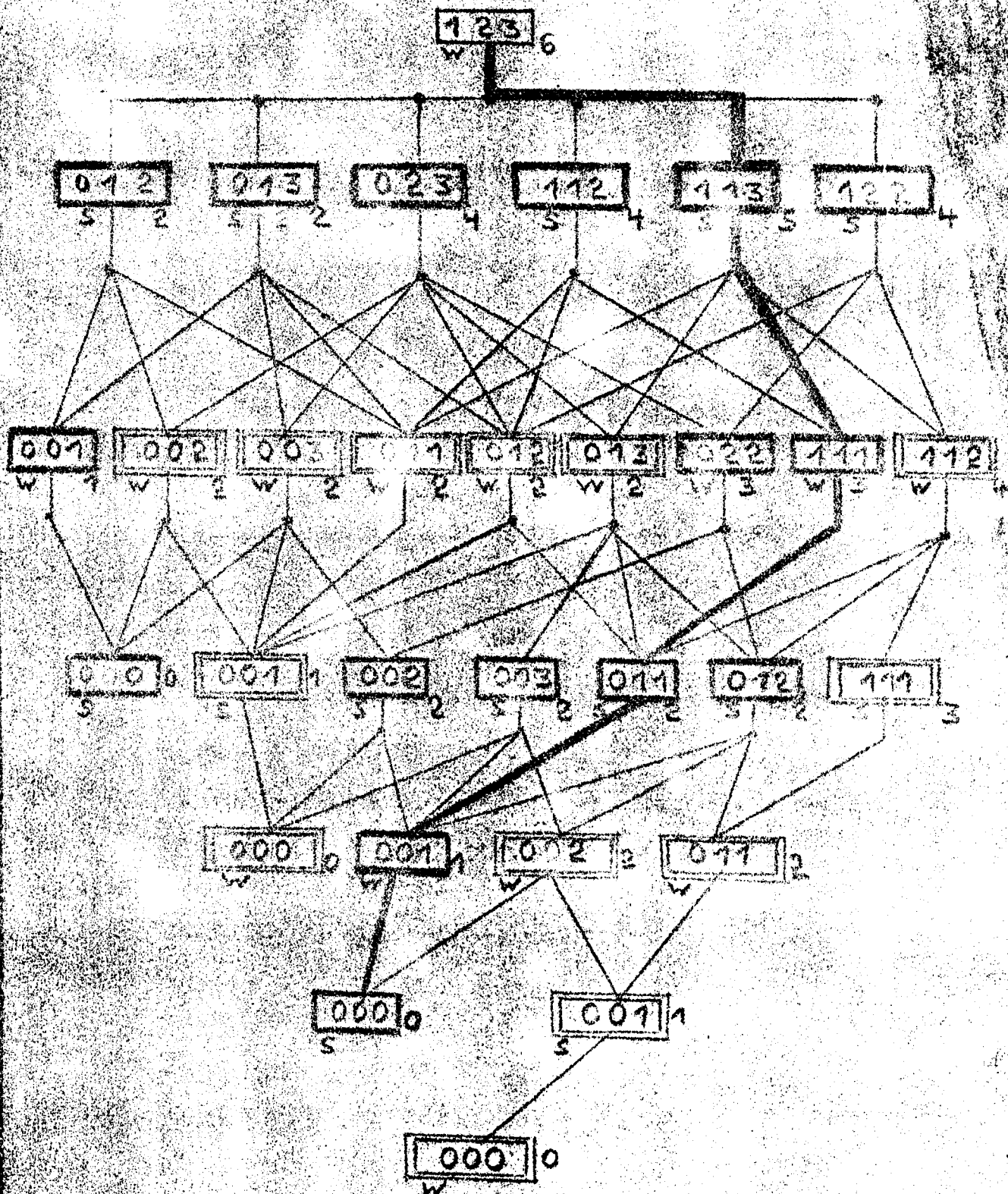
$$\bar{g} \bar{g}$$

$$K = \text{...}$$

$$\hat{g}(L_1) \sim \left[\begin{array}{l} Z(L_1) \wedge \exists L_2 [\text{Zug}(L_1, L_2) \wedge \hat{g}(L_2) \wedge \hat{g}(L_2)] \\ \vee \overline{Z(L_1)} \wedge \exists L_2 [\text{Zug}(L_1, L_2) \wedge \bar{g}(L_2)] \\ \vee \bar{Z}(L_1) \wedge \exists L_2 [\text{Zug}(L_1, L_2) \wedge \hat{g}(L_2) \wedge \bar{g}(L_2)] \\ \vee \bar{Z}(L_1) \wedge \exists L_2 [\text{Zug}(L_1, L_2) \wedge \bar{g}(L_2)] \end{array} \right]$$







1) das ist die in der Kiste
enthalten

2) das ist die in der Kiste
in der Kiste 030 - 0.1.2.3 fl.

3) das ist die in der Kiste
in der Kiste 030 - 0.1.2.3 fl.

Prüfung zur Vorlesung

1) WK, WT, CK. $P_{\Delta 300} = R$ $3 \times \Delta 2 = \Delta 20$

$\Delta 20 \rightarrow \Delta 20$ $\Delta 20 \rightarrow \Delta 20$

$\Delta 20 \rightarrow \Delta 20$

$P_{\Delta 300} \quad R(v) \Rightarrow R$

	$v \neq v \wedge v \neq v \wedge v \neq v$	$ v - v > 1 \vee v - v > 1 \wedge R$
V	0 0 0 0 0	0 0 0 0 0
K	0 1 1 2 1	0.0 2.0 0.1 1.1 0
A	$\Delta 2 \Delta 2 \Delta 2 \Delta 2 \Delta 2$	$\Delta 1 \Delta 1 \Delta 1 \Delta 1 \Delta 1$

$[v \neq v \wedge v \neq v \wedge v \neq v] \rightarrow R$

$P_{\Delta 301} \quad R(v) \Rightarrow R$

	$v = v \vee v = v \Rightarrow R_{\Delta 301}$
V	0 0 0 0 0
K	1.0 2.0 1.1 2.1 0
A	$\Delta 1 \Delta 1 \Delta 1 \Delta 1 \Delta 1$

$P_{\Delta 302} \quad R(v) \Rightarrow R$

	$ v - v \leq 1 \wedge v - v \leq 1 \Rightarrow R_{\Delta 302}$
V	0 0 0 0 0
K	1.0 2.0 1.1 2.1 0
A	$\Delta 1 \Delta 1 \Delta 1 \Delta 1 \Delta 1$

$P_{\Delta 303} \quad R(v, v) \Rightarrow R$

	$[v - v \leq 1 \wedge v - v \leq 1] \vee$
V	0 1 0 1 0
K	0 0.0 1 0.1 0
A	$\Delta 2 \Delta 20 \Delta 20 \Delta 20 \Delta 20$

zur 1. Klausur

1) Welches der folgenden ist ein

a) Monomer

b) Polymer

c) Kopolymer

d) Blockpolymer

e) Graftpolymer

2) Welche der folgenden Aussagen sind richtig?

3) Welche der folgenden Aussagen sind richtig?

a) Polymerisation

b) Polymerisation

c) Polymerisation

4) Welche der folgenden Aussagen sind richtig?

a) Polymerisation

b) Polymerisation

c) Polymerisation

d) Polymerisation

V
Z
C
O

		A2	S2
V	1	+	+
V	2	+	+
V	3	+	+
Z	1	+	+
Z	2	+	+
Z	3	+	+
C	1	+	+
C	2	+	+
C	3	+	+
O	1	+	+
O	2	+	+
O	3	+	+

(16.4)

$\neg v c$ A2
 $v c$ S2
 $\neg z c$ A2
 $z c$ S2

$\sim \sqrt{4, \theta}$

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
16.1	V	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.2	Z	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.3	-	-	-	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.5	C	-	+	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.6	)	-	+	-	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.7	<	-	+	+	0	0	-	-	+	+	-	-	+	+	-	-	+	+	-	-	+
16.8	>	-	+	+	0	0	-	-	+	+	-	-	+	+	-	-	+	+	-	-	+
16.9	2	-	+	+	0	0	-	-	+	+	-	-	+	+	-	-	+	+	-	-	+
16.10	3	-	+	+	0	0	-	-	+	+	-	-	+	+	-	-	+	+	-	-	+
16.11	2	-	+	+	0	0	-	-	+	+	-	-	+	+	-	-	+	+	-	-	+
16.12	2	-	+	+	0	0	-	-	+	+	-	-	+	+	-	-	+	+	-	-	+

- 16.14: $v_m \vee [(v_{n-1} \vee v_{n-2}) \wedge (v_{n-2} \rightarrow v_{n-3})]$
- 16.15: $v_m \vee R16.6(v)$
- 16.16: $\overline{v}_m \wedge \overline{R16.6(v)}$
- 16.17: $R16.14(v)$

A2(x) ...
 S2(x) ...
 A2 ...
 S2 ...

16.20: ω (...)
 $\vee \left| \begin{matrix} G(v, v) \\ 0 \\ 1 \end{matrix} \right| \Rightarrow \begin{matrix} R \\ 0 \\ 0 \end{matrix}$

$$(R16.16(v) \wedge R16.14(v)) \vee (R16.15(v) \wedge R16.14(v)) \vee [R16.2(v) \wedge R16.14(v)]$$

1. ser. 0.1 ³⁷ ~~2. ser. 0.1~~ 2. ser. 0.1
opaf 20 1. ser. 0.1 2. ser. 0.1
5. ser. 0.1 2. ser. 0.1
2. ser. 0.1 2. ser. 0.1

$$\overline{Va'(x)} \rightarrow Sa(x)$$

$$Ex Ey (Sa(x) \wedge Sa(y) \wedge v_0 = (x_0 \cup y_0)) \rightarrow Sa(v_0)$$

$$v_0 = (x_0 \cup y_0) \rightarrow E$$

$$R\Delta O(v_0, v_0) \Rightarrow R \quad \text{def: } Sa(v_0)$$

$$(v_0 \cup v_0) \Rightarrow R$$

$$R\Delta O'(v_0)$$

$$Ex Ey (Sa(x) \wedge Sa(y) \wedge R\Delta O(x, y))$$

$$Va(v_0) \rightarrow Sa(v_0)$$

$$(Sa(v_0) \wedge Sa(v_0) \wedge R\Delta O(v_0, v_0) = v_2) \rightarrow Sa(v_2)$$

$$Ex Ey (Sa(x) \wedge Sa(y) \wedge R\Delta O(x, y) = v_0) \rightarrow Sa(v_0)$$

$$R\Delta O'(v_0)$$

$$\sim Ex [x \in v \wedge Op(x) \wedge Sa[\hat{y}(y \in v_0 \wedge J(y) < J(x)) \\ \wedge Sa[\hat{y}(y \in v_0 \wedge J(y) > J(x))]]]$$

2. v_0 / v_0 :

$$R\Delta O'(v_0) \rightarrow E(x)(x \in v_0 \wedge Op(x))$$

3. $v_0 \in$:

$$\overline{E(x)(x \in v_0 \wedge Op(x))} \rightarrow \overline{R\Delta O'(v_0)}$$

$Ae \rightarrow Aa$: Ea_0 $Ae \rightarrow Ab$ Ea_0

$Ae \rightarrow Af$

Ea_1

$Ae \rightarrow Ag$

Ea_1

$Ae \rightarrow C$

Ec

$Af \rightarrow Av$

Ea_1

$Af \rightarrow Ac$

Ea_1

$Af \rightarrow Aw$

Ea_1

$Al \rightarrow Ab$

Ea_1

$C \rightarrow Af$

Ea_2

$C \rightarrow Ag$

Ea_2

$Ag \rightarrow T$

$T \rightarrow Af$

$$\text{Case 1: } \begin{aligned} \text{Va}'(v) &\rightarrow \text{Sa}(v) \\ \text{Rao}'(v) &\rightarrow \text{Sa}(v) \end{aligned}$$

$$\text{Wf: } \text{Va}'(v) \wedge \text{Rao}'(v) \rightarrow \text{Sa}(v)$$

$$\text{Rao}'(v) \rightarrow [\text{Va}'(v) \rightarrow \text{Sa}(v)]$$

$$\cancel{(\exists x (x \in v \wedge p(x) = y)) \wedge (\exists x (x \in v \wedge J(x) < J(y)))}$$

$$(\exists x (x \in v \wedge p(x) = y)) \wedge (\exists x (x \in v \wedge J(x) < J(y))) = ?$$

$$\rightarrow \text{Er}(x \in v \wedge p(x))$$

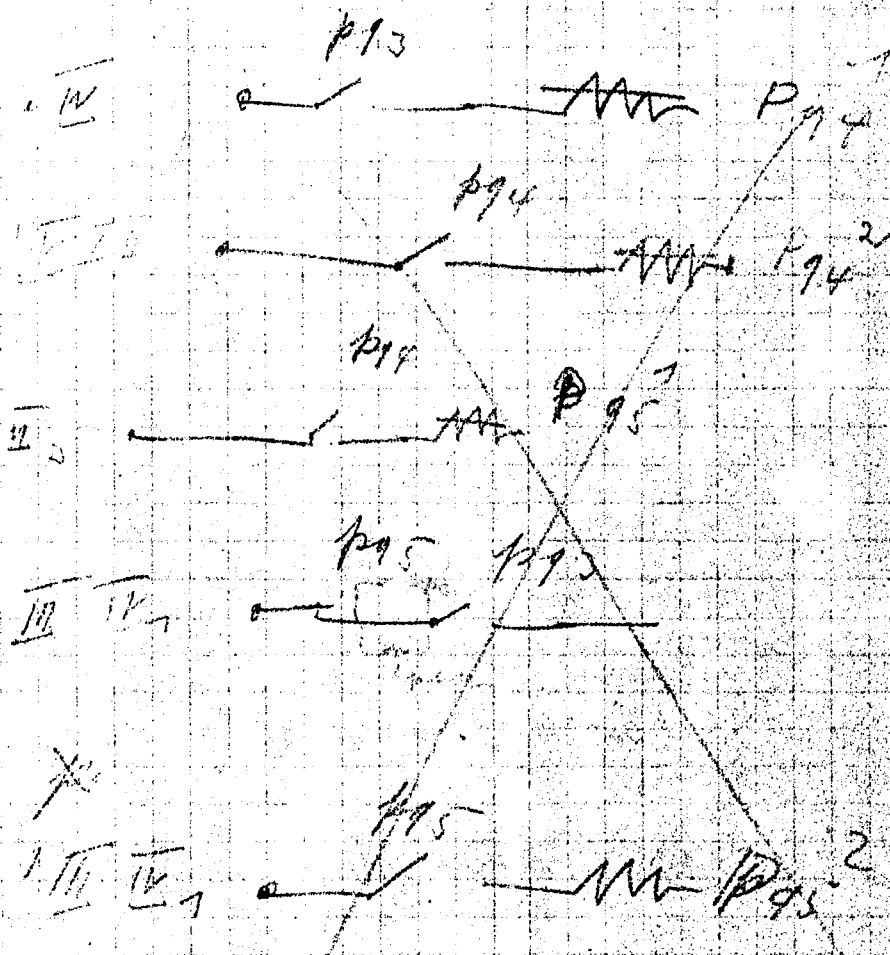
$$\text{Er}(x \in v \wedge p(x)) \rightarrow \text{Rao}'(z)$$

$$\text{Rao}'(z) \rightarrow [\text{Va}'(z) \rightarrow \text{Sa}(z)]$$

Case:

$$(\exists x (x \in v \wedge p(x) = y)) \wedge (\exists x (x \in v \wedge J(x) < J(y))) = ?$$

$$\rightarrow [\text{Va}'(z) \rightarrow \text{Sa}(z)]$$



$$RDO(v, v) \Rightarrow R$$

$$\text{DMS } D=0 \quad D=0$$

$$\neg R: Sa(x) \wedge Sa(y)$$

$$(v_0, d, v_1) \Rightarrow R$$

$$RDO(v_0) \sim [(Ex)(Ey) (Sa(x) \wedge Sa(y) \wedge RDO(x, y) = v_0)]$$

$$m_0 \text{ DMS } Sa(v_0)$$

$$Sa'(v_0) \rightarrow Sa(v_0)$$

$$RDO'(v_0) \rightarrow Sa(v_0)$$

$$Sa'(v_0) \vee RDO'(v_0) \rightarrow Sa(v_0)$$

$$m_0 \text{ DMS } Sa(v_0)$$

$$(v_0, d, v_1) \Rightarrow R$$

$$(Ex)(Sa(v_0, x)) \rightarrow Sa(v_0)$$

$$\text{DMS } D=0$$

$$m_0 \text{ DMS } RDO(v_0)$$

$$Sa(v_0) \rightarrow Sa(v_0)$$

$$(Ex)(Ey) [(x, y) = v_0 \wedge Sa(x) \wedge Qp(y)] \rightarrow Sa(v_0)$$

$$\text{DMS } D=0$$

$$Sa(v_0) \vee [(Ex)(Ey) [(x, y) = v_0 \wedge Sa(x) \wedge Qp(y)] \rightarrow Sa(v_0)]$$

$$\text{DMS } D=0$$

E

$$\frac{E}{c^2} = m$$

$$\frac{h\nu}{c} = mv$$

$$\boxed{\frac{h\nu}{c} = \frac{h}{\lambda}} = G$$

Zuordnung des Impulses zu seiner Wellenlänge.

Zuordnung einer Wellenlänge zu einem Teilchen

$$\boxed{mv = \frac{h}{\lambda}}$$

$$\lambda = \frac{h}{mv}$$

$$\int G ds = m \cdot h$$

$$m \cdot v \cdot a \cdot 2\pi = \frac{h}{\lambda} \cdot 2\pi$$

$$m \cdot v \cdot a = \frac{h}{\lambda}$$

~~h~~

$$\frac{E}{c^2} = m$$

$$\frac{h\nu}{c} = mv$$

$$\frac{h\nu}{c} = mv$$

$$\boxed{\frac{h}{\lambda} = p}$$

$$\lambda = \frac{h}{p}$$

Abg. "c" für $\forall x \in A$ und $\forall y \in B$
 - 0 de $\forall x \in A$ für $\forall y \in B$
 über $\forall x \in A$ und $\forall y \in B$

$$\frac{Sa(v) \rightarrow (x) [v = \hat{y} (y \in v \wedge \forall y \leq m)]}{m \times \sigma} \rightarrow 'Sa(x)'$$

$$\frac{Sa(v)}{m \times \sigma} \rightarrow (x) [x < m \rightarrow 'Sa[\hat{y} (y \in v \wedge \forall y) \leq x]]]$$

2. A. $\forall x \in A$

$$\frac{Sa(v) \rightarrow (x) [(E y) ((x, y) = v)]}{\text{Sia } 2 \times \sigma} \rightarrow 'Sa(x)'$$

$$u \rightarrow m \times \sigma \quad [0 \text{ oder } 1]$$

3. $v = 1$

$$Sa(v) \wedge (E y) ((x, y) = v) \rightarrow 'Sa(x)'$$

$$u \rightarrow \text{Sia } 1 \times \sigma \quad \left| \begin{array}{c} v \\ s \end{array} \right| \frac{Te(v, v)}{m \times \sigma \quad 1} \Rightarrow R \left| \begin{array}{c} 1 \times \sigma \\ 1 \end{array} \right|$$

$$\text{Sia } 1 \times \sigma \quad v \leq m$$

$$(W1(v, 1)) \left[\begin{array}{c} v \\ 0 \\ i \end{array} \right] \Rightarrow R \left[\begin{array}{c} 1 \\ 0 \\ i \end{array} \right]$$

$$v = \begin{pmatrix} v \\ 1 \\ 0 \end{pmatrix} \quad \text{Sia } 1 \times \sigma \quad (Ex) (Te(v, x) = v)$$

$$Sa(v) \rightarrow (x) [(x = \begin{pmatrix} v \\ 1 \\ 0 \end{pmatrix}) \rightarrow 'Sa(x)']$$

$$Sa(v) \wedge (v = \begin{pmatrix} v \\ 1 \\ 0 \end{pmatrix}) \rightarrow 'Sa(v)' \quad \left| \begin{array}{c} Sa(v) \rightarrow 'Sa(\begin{pmatrix} v \\ 1 \\ 0 \end{pmatrix})' \end{array} \right|$$

PD10

11

RCU, $\frac{V}{I} \rightarrow R$ ~~off~~ $\frac{V}{I}$
Exo 0 0 0

$P = 20 \text{ to } 30 \text{ t}$ *Sicherheitsfaktor 3*

• $P_K = 60 \text{ aus } L_9$

$$P_K = \frac{\pi \cdot E \cdot J}{l^2} = \dots$$

$$J = \frac{P_K \cdot l^2}{\pi^2 E} = \frac{60 \cdot 10^3 \cdot 250^2}{\pi^2 \cdot 2,1 \cdot 10^6} = 110 \text{ cm}^4$$

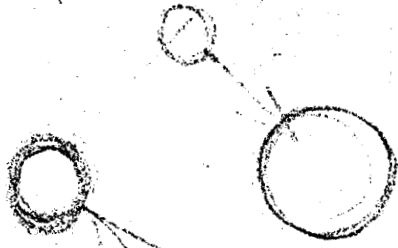
• Rohr 10×10

$$J = \frac{10^4 - 8^4 \pi}{64} = 24 \text{ cm}^4$$

90×10

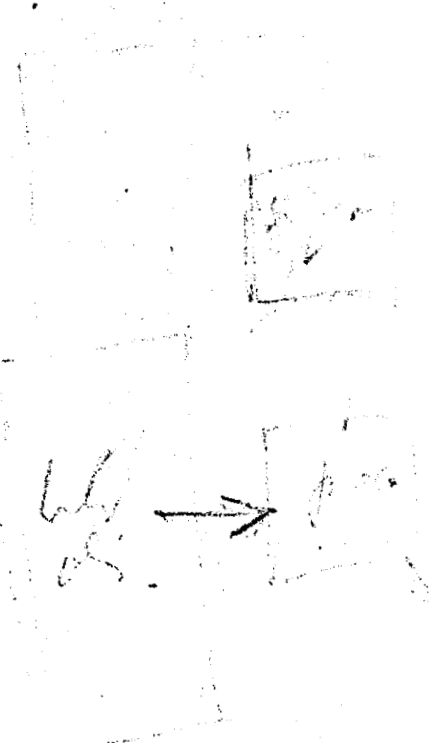
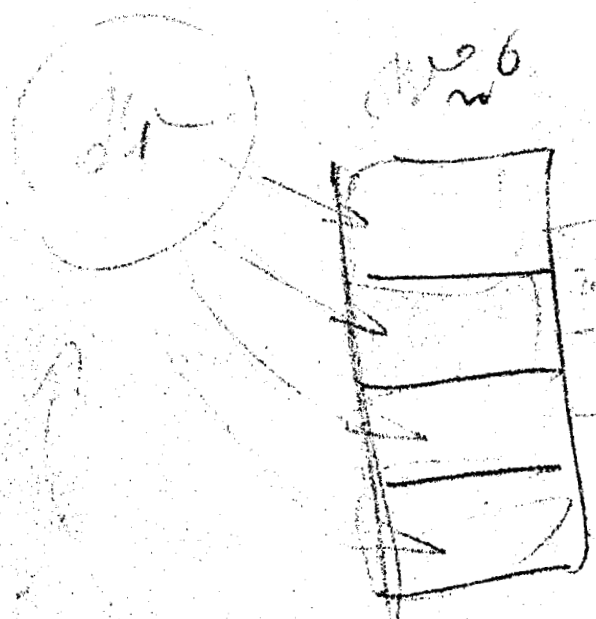
$$J = \frac{9^4 - 7^4 \pi}{64} = 210 \text{ cm}^4$$

Rohr 90×10 *genügend*



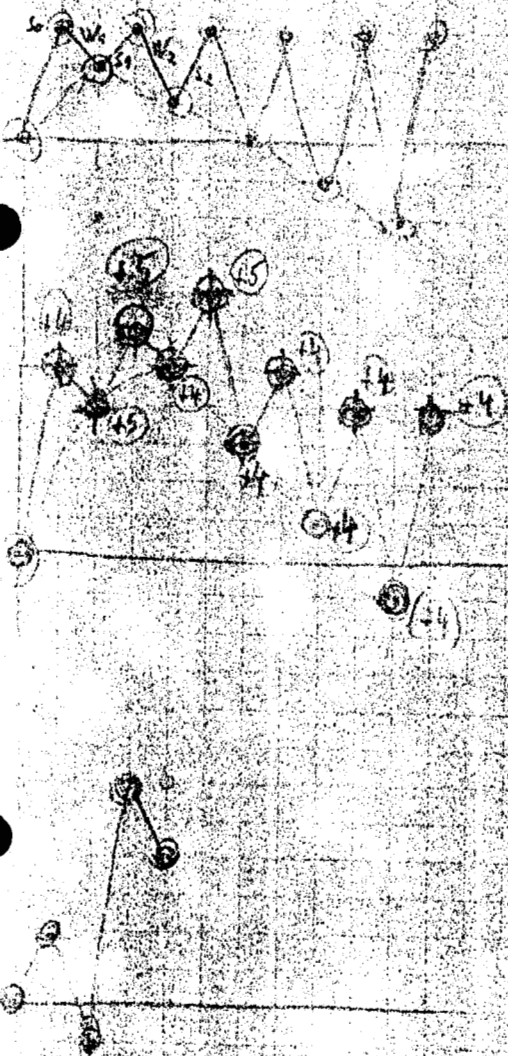
Handwritten notes and diagrams in the top right corner. The notes include:

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W_1	1 1	S_1	1 2
W_2	2 1	S_2	2 2
W_3	3 4	S_3	3 2
W_4	4 4	S_4	4 3
W_5	5 5	S_5	5 5

$W_1 \rightarrow S_0$	S_0	S_0
$S_1 \rightarrow W_1$	W_1	$S_0 - W_1$
$W_2 \rightarrow S_1$	S_1	$S_0 - W_1 + S_1$
$S_2 \rightarrow W_2$	W_2	$S_0 - W_1 + S_1 - W_2$
$W_3 \rightarrow S_2$	S_2	$S_0 - W_1 + S_1 - W_2 + S_2$
$S_3 \rightarrow W_3$	W_3	$S_0 - W_1 + S_1 - W_2 + S_2 - W_3$
$W_4 \rightarrow S_3$	S_3	$S_0 - W_1 + S_1 - W_2 + S_2 - W_3 + S_3$
$S_4 \rightarrow W_4$	W_4	$S_0 - W_1 + S_1 - W_2 + S_2 - W_3 + S_3 - W_4$
$W_5 \rightarrow S_4$	S_4	$S_0 - W_1 + S_1 - W_2 + S_2 - W_3 + S_3 - W_4 + S_4$
$S_5 \rightarrow W_5$	W_5	$S_0 - W_1 + S_1 - W_2 + S_2 - W_3 + S_3 - W_4 + S_4 - W_5$
	S_5	





APRIL						
S	M	D	M	D	F	S
—	—	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	—	—	—
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KARFREITAG

11

April

MAI						
S	M	D	M	D	F	S
—	—	—	—	1	2	3
4	5	6	7	8	9	10
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- 1) en 2002
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 b) 2002
 c) 2002
 d) 2002 [1/2/3/4/5/6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/52/53/54/55/56/57/58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/92/93/94/95/96/97/98/99/100]
- 2) 2002: 2002 - 2002

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- 1) 2002
 2) 2002

sonst

- 1) $\{ \dots \}$
- 2) $\{ \dots \}$
- 3) $\{ \dots \}$
- 4) $\{ \dots \}$
 - a) $\{ \dots \}$
 - b) $\{ \dots \}$

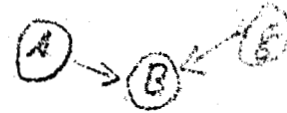
5) $\{ \dots \}$

6) $\{ \dots \} \rightarrow \{ \dots \}$

sonst

1) $A \rightarrow B$ $B \rightarrow A$ $A \rightarrow B$

2) $A \rightarrow B$ $B \rightarrow A$ $B \rightarrow A$



$A \rightarrow B$

$B \rightarrow A$

3) $\{ \dots \}$

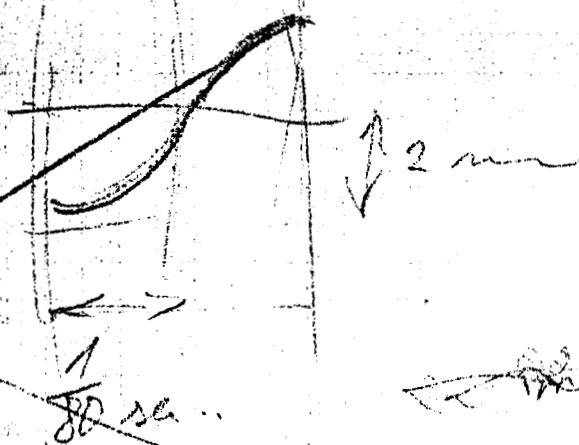
$$\Delta = 4 \text{ mm}$$

$$\sigma = \frac{b+2}{2}$$

$$\sigma = \frac{25}{72} = 2.92 \cdot 80^2$$

$$0.46400$$

$$2560 \frac{\text{mm}}{s^2} \approx 2.5 \text{ g}$$



B B B B B B B B S S L L T T D K B B B B B B S S L L T T D K

W → W

W → S

S → W

S → S