

[illegible]

NOTE: Window size of interest operators:
Window size for non-maximum suppression:

	i	j	u	$\bar{u}_i$	$\bar{u}_j$	rho
1	2	01	4.737	410.	311.	0.813915
2	3	06	18.907	410.	469.	0.934143
3	3	07	6.047	907.	423.	0.743084
4	3	09	9.129	907.	708.	0.767720
5	4	06	3.355	384.	469.	0.733857
6	4	08	8.088	344.	444.	0.875199
7	5	03	27.938	410.	566.	0.932111
8	5	10	2.052	410.	280.	0.572882
9	6	05	16.436	455.	584.	0.863114
10	6	08	2.730	445.	445.	0.425022
11	7	08	16.076	714.	445.	0.897575
12	8	08	11.647	483.	445.	0.897352
13	8	10	1.808	483.	280.	0.589731
14	9	06	6.533	344.	445.	0.773282
15	9	08	11.360	345.	445.	0.897266
16	9	11	2.187	345.	325.	0.399452
17	10	02	2.891	961.	445.	0.421104
18	10	03	2.434	961.	288.	0.611800
19	10	04	2.578	961.	486.	0.519254
20	10	07	2.492	961.	423.	0.364607
21	11	02	7.138	761.	445.	0.897266

NOTE: x, y coordinates
 $\bar{w}$ interest value
 q measure for isotropy of error ellipse (in percent)

ij point No. in left and right image ($201 \approx (2,1)$), w initial weight, $\bar{w}$ preliminary weights, rho correlation coefficient.

$$\begin{pmatrix} 1.19529 & 0.10307 & 3.58 \\ -0.08967 & 0.88201 & -6.43 \end{pmatrix}$$

a)

i	left	right	xl	yl	xr	yr	dx	dy
1	2	6	10.000	34.000	21.000	22.000	-1.961	0.637
2	3	7	12.000	45.000	21.000	33.000	1.563	-0.840
3	3	9	12.000	45.000	24.000	33.000	-1.437	-0.840
4	4	8	13.000	31.000	24.000	18.000	-1.684	1.722
5	8	10	16.000	21.000	26.000	8.000	-1.129	2.633
6	9	8	16.000	31.000	24.000	18.000	1.902	1.453
7	11	13	24.000	41.000	37.000	27.000	-0.505	0.356
8	13	12	26.000	19.000	33.000	8.000	1.618	-0.027
9	14	13	26.000	40.000	37.000	27.000	1.782	-0.305
10	15	17	30.000	23.000	39.000	11.000	2.811	0.142
11	15	19	30.000	23.000	42.000	11.000	-0.189	0.142
12	15	22	30.000	23.000	45.000	10.000	-3.189	1.142
13	16	23	31.000	38.000	45.000	24.000	-0.448	0.282
14	5	5	14.000	15.000	21.000	7.000	0.862	-1.480
15	13	17	26.000	19.000	39.000	11.000	-2.382	-3.027
16	6	5	14.000	17.000	21.000	7.000	1.068	0.284
17	4	6	13.000	31.000	21.000	22.000	1.316	-2.278

clean list

b)

i	left	right	xl	yl	xr	yr	dx	dy
1	2	6	10.000	34.000	21.000	22.000	-1.961	0.637
2	3	9	12.000	45.000	24.000	33.000	-1.437	-0.840
3	8	10	16.000	21.000	26.000	8.000	-1.129	2.633
4	9	8	16.000	31.000	24.000	18.000	1.902	1.453
5	11	13	24.000	41.000	37.000	27.000	-0.505	0.356
6	13	12	26.000	19.000	35.000	8.000	1.618	-0.027
7	15	19	30.000	23.000	42.000	11.000	-0.189	0.142
8	16	23	31.000	38.000	45.000	24.000	-0.448	0.282
9	6	5	14.000	17.000	21.000	7.000	1.068	0.284

Table 3 Result of Robust Affine Transformation

- a) uncleaned list, containing ambiguities
b) cleaned list, final result

(cf. Figure 2)

NOTE: 6 iterations

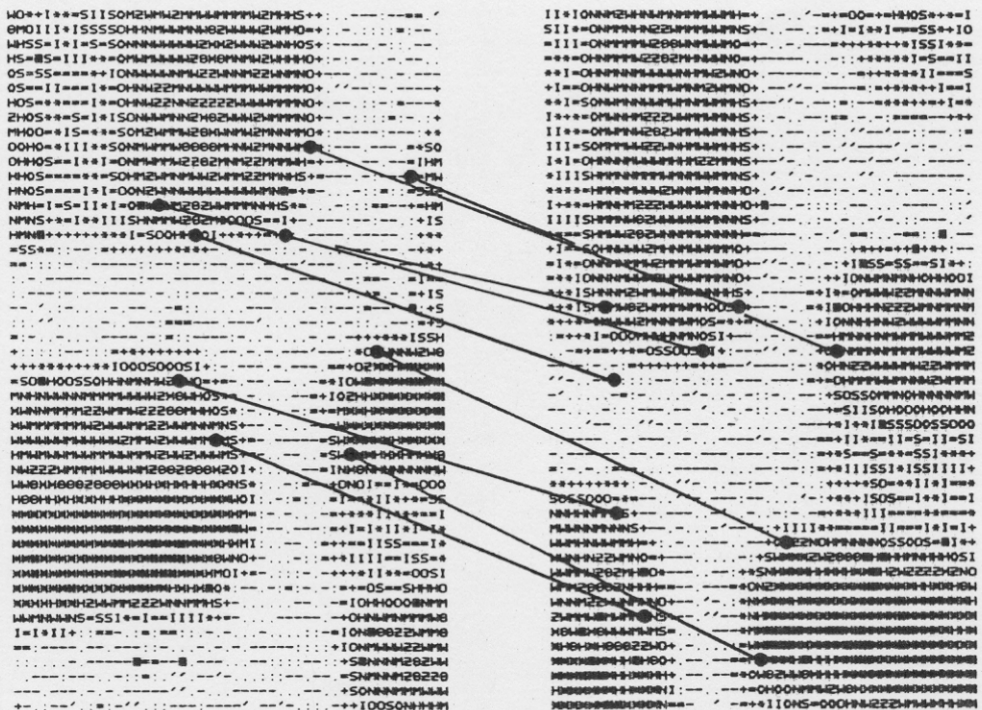


Figure 2

Result of Correspondence Algorithm.

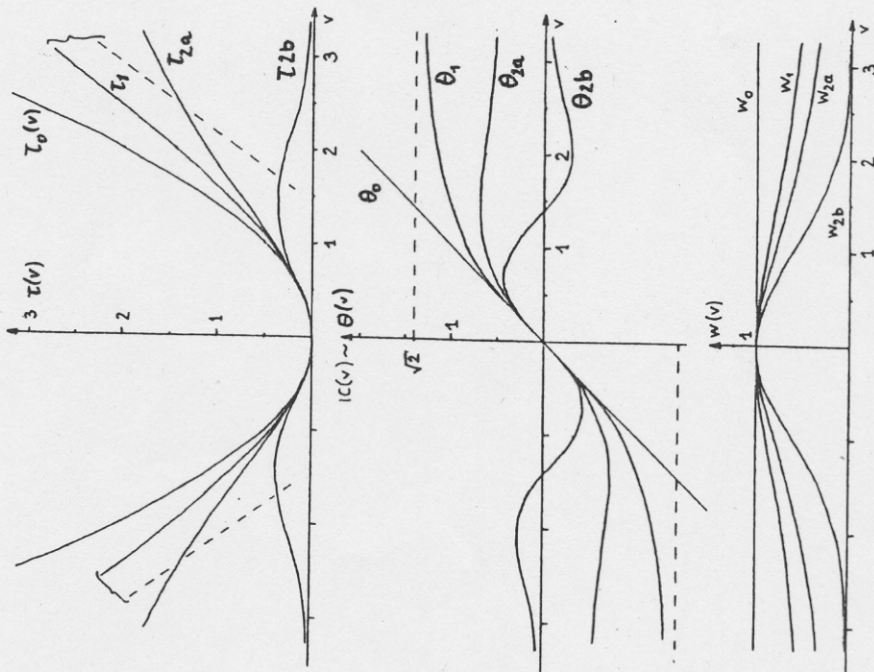
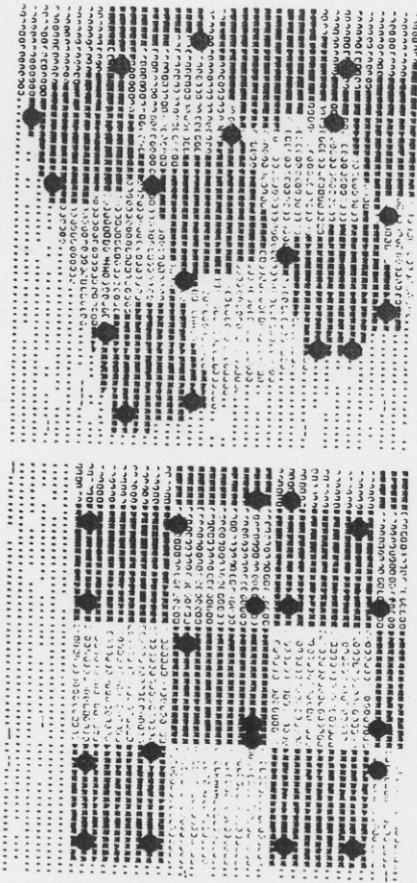
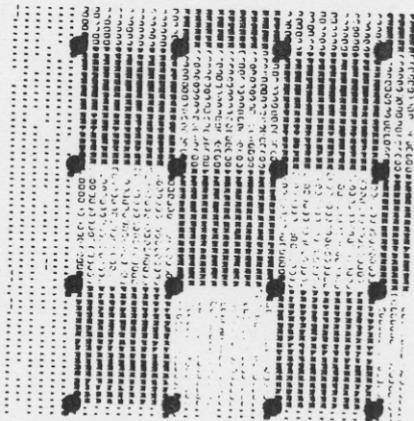


Figure 3 Minimum, Influence, and Weight Functions $\tau(v)$, $IC(v) - \theta(v)$, and $w(v)$.

NOTE: 0: least squares, non robust ($\theta(v)$ not bounded)
 1: L_1 -Norm, robust, convergence guaranteed
 2: redescending IC,
 a: ML-estimator for Cauchy-Distribution
 b: exponential weight-function



a)



b)

Fig. 4 Result of interest operator on checker board
 Nearest neighbourhood resampling for rotated board
 a) center of selected windows
 b) estimated corners = weighted center within selected windows
 NOTE: Several windows contain the same corner

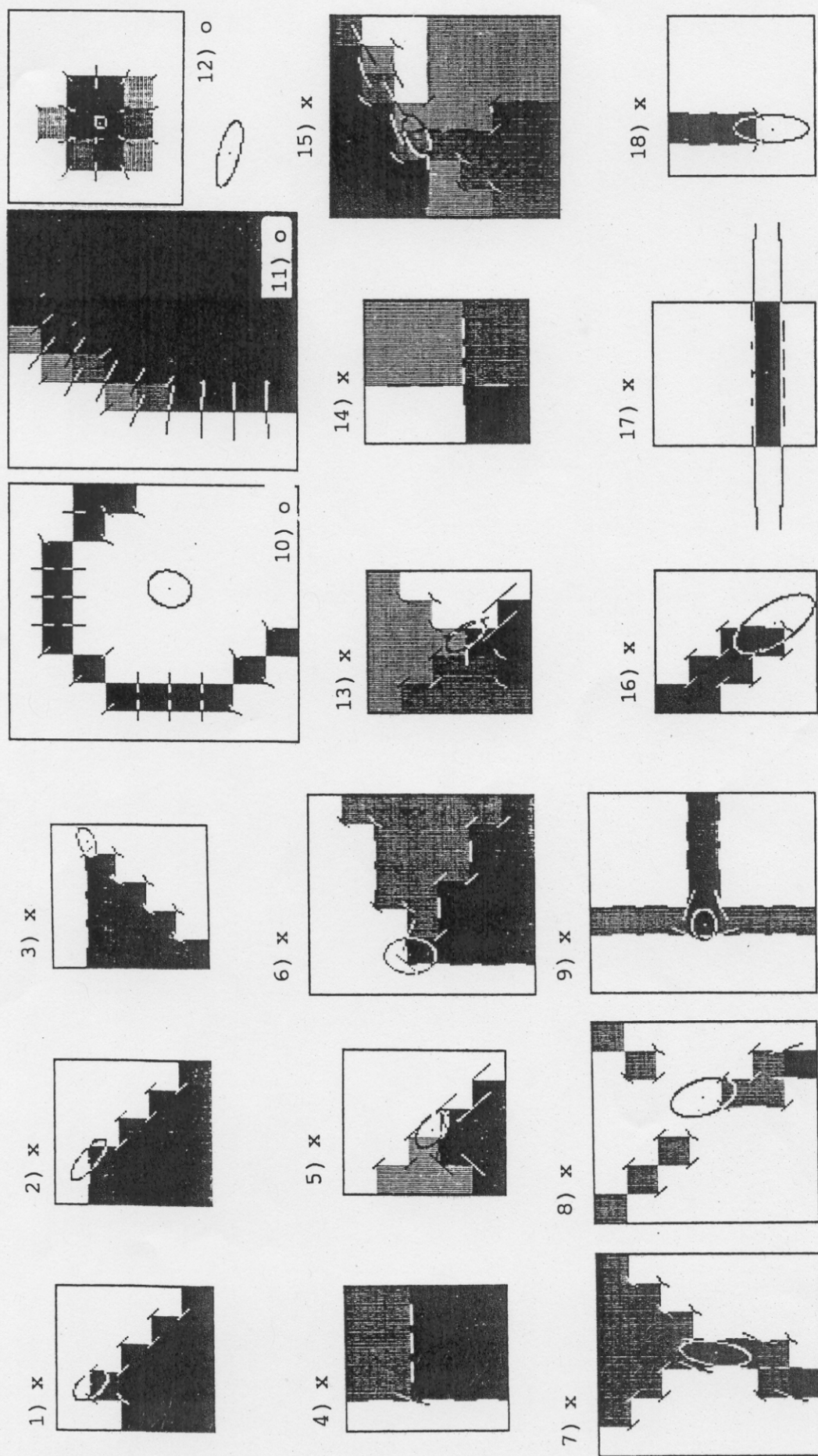


Fig. 5 Result of point selector (sect. 4.2) based on different selected windows
 Simulated data
 edge-elements for intersection-, corner-points (x)
 slope elements for centers of circles and discs (o)
 99 %-confidence ellipse estimated from fit of gray levels to model