

キーワード

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EGUCHI^{††}, Ichiro IDE[†], Hiroshi MURASE[†], Takayuki KUROZUMI^{†††},
KASHINO^{†††}

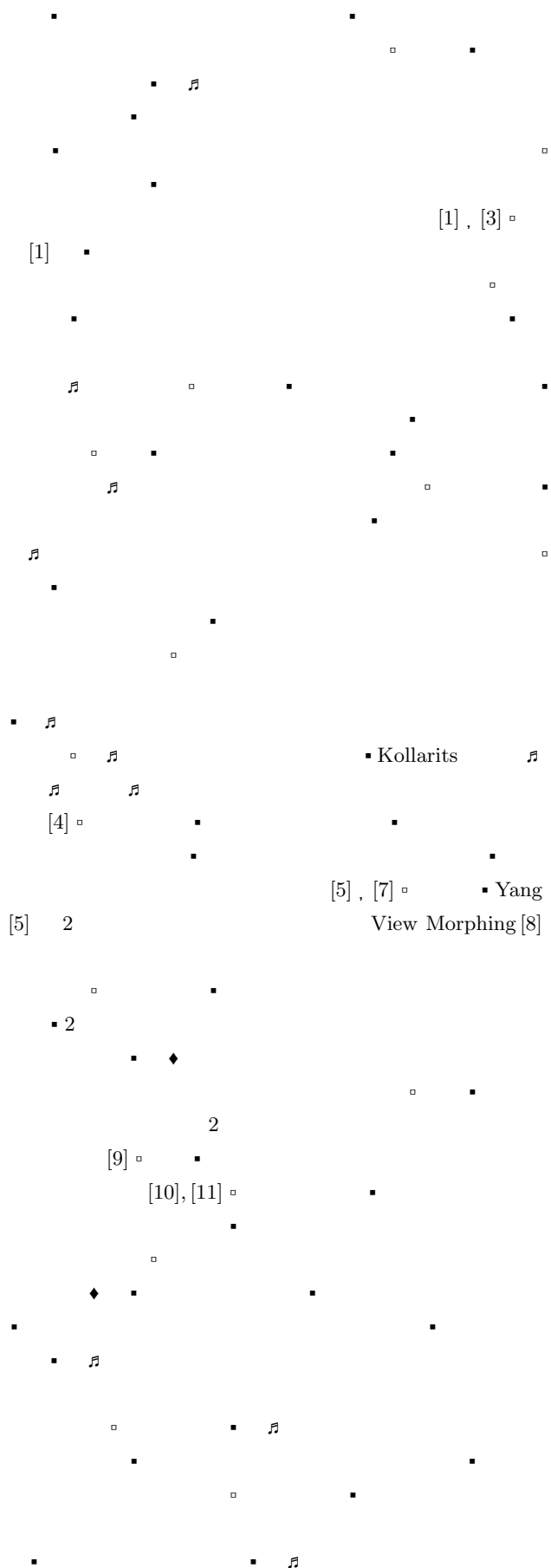
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Abstract In recent years, the spread of Web cameras have facilitated video conferencing. Although a Web camera

1. まえがき



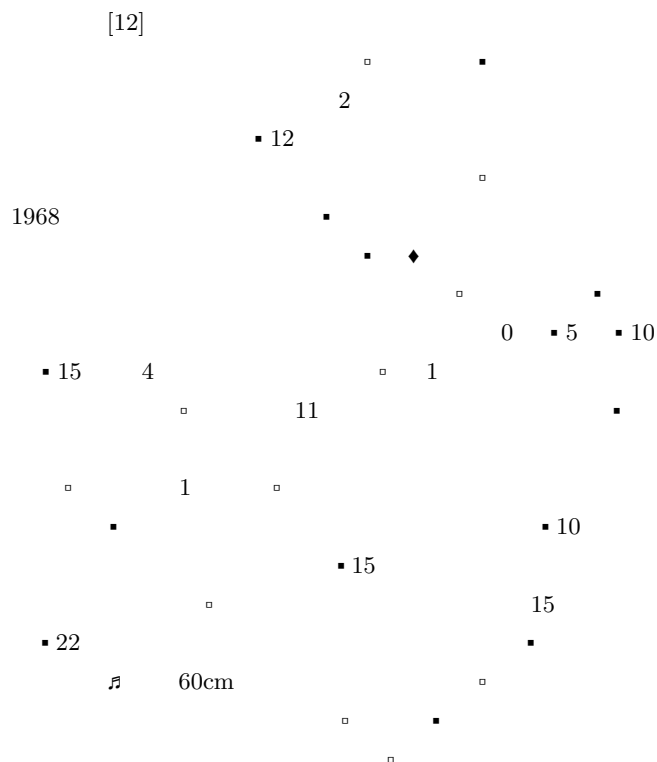
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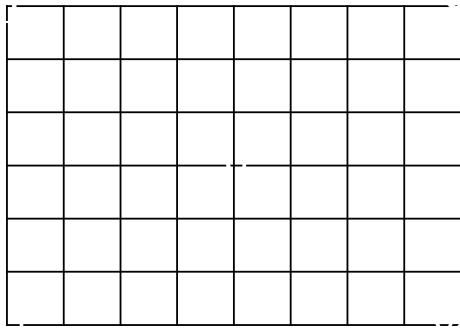
1

1

$\hat{\epsilon}$	0	5	10	15
$\hat{\epsilon}^{\%}$	90	73	19	4

2. テレビ会議用カメラの配置と視線一致の関係





2

12	27	35	31	35	65	31	12	8
12	27	62	58	62	50	27	23	8
27	23	65	73	77	62	50	15	4
27	46	77	92	92	88	58	23	4
35	58	85	100	92	92	58	31	12
31	54	81	92	96	92	73	31	12
27	46	65	73	85	73	35	8	8

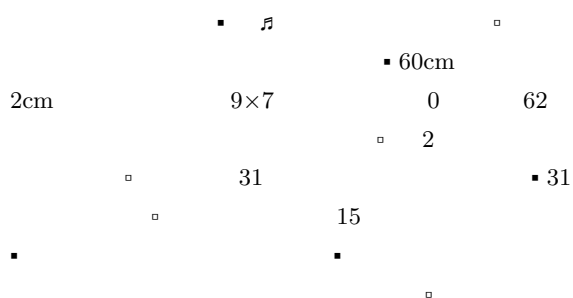
3

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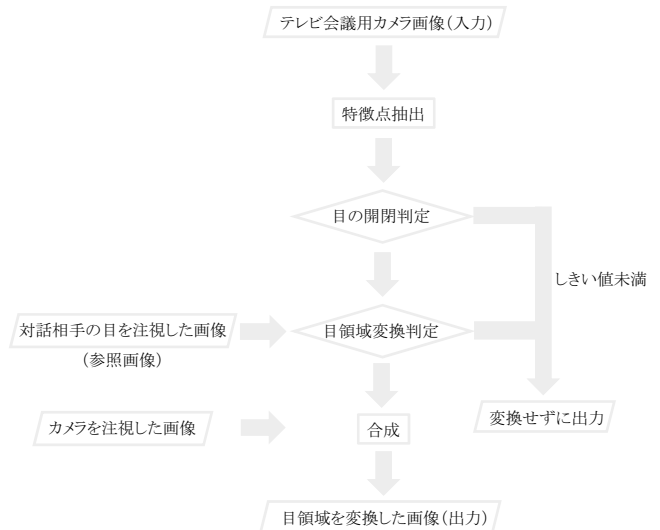
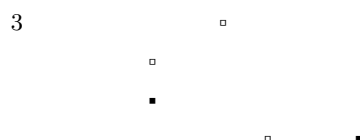
3. テレビ会議における対話者間の視線一致のための目領域変換手法

3.1 対話相手が視線の一致を感じる範囲の調査

3.1.1

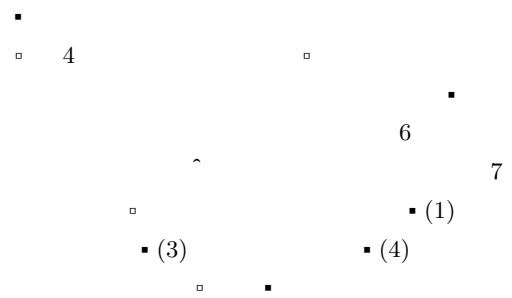


3.1.2

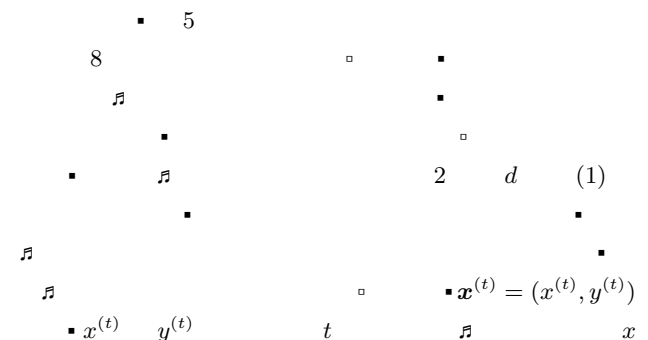


4

3.2 目領域変換判定を用いたテレビ会議システム

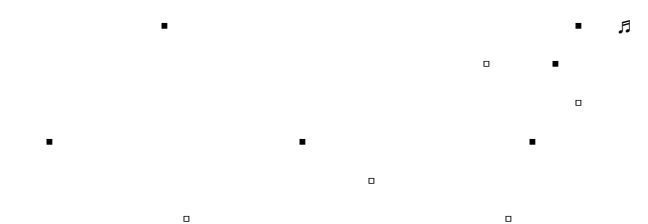


3.2.1



$$d = \sum_{i=1}^8 \|\mathbf{x}_i^{(t-1)} - \mathbf{x}_i^{(t)}\|^2 \quad (1)$$

3.2.2



3.2.3



5

6

7



5

8

8



(a)

(b)

10

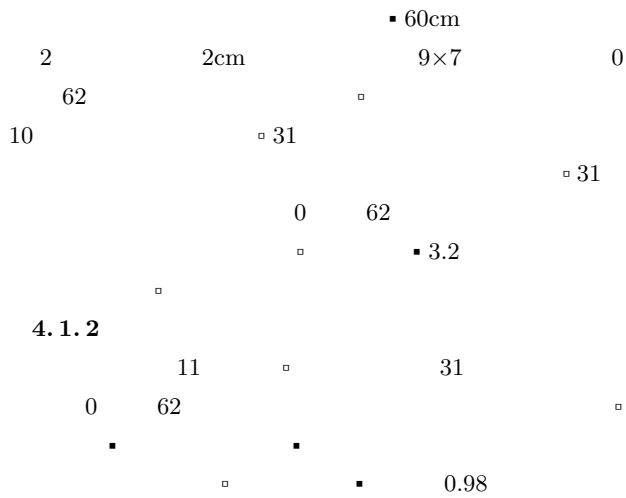
0.97	0.97	0.97	0.97	0.97	0.97	0.94	0.95	0.93
0.96	0.96	0.98	0.98	0.99	0.97	0.97	0.96	0.94
0.96	0.97	0.97	0.98	0.99	0.97	0.96	0.97	0.94
0.96	0.97	0.97	0.98	1	0.98	0.96	0.96	0.93
0.95	0.96	0.98	0.97	0.99	0.98	0.97	0.97	0.96
0.96	0.96	0.97	0.98	0.97	0.98	0.96	0.95	0.94
0.95	0.96	0.94	0.97	0.96	0.97	0.97	0.95	0.94

11

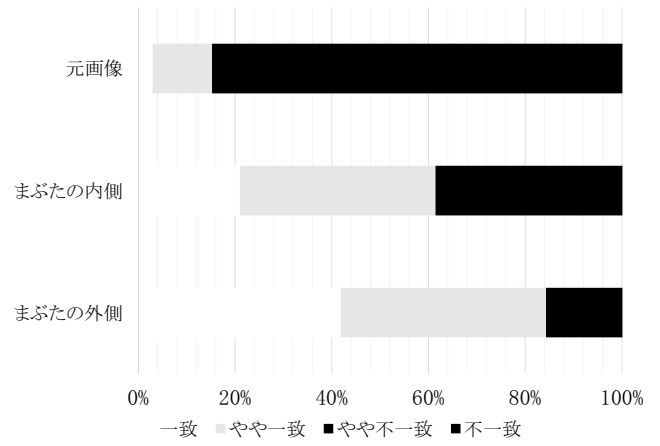
4.2

4.1 画像間類似度を用いた目領域変換判定の精度

4.1.1



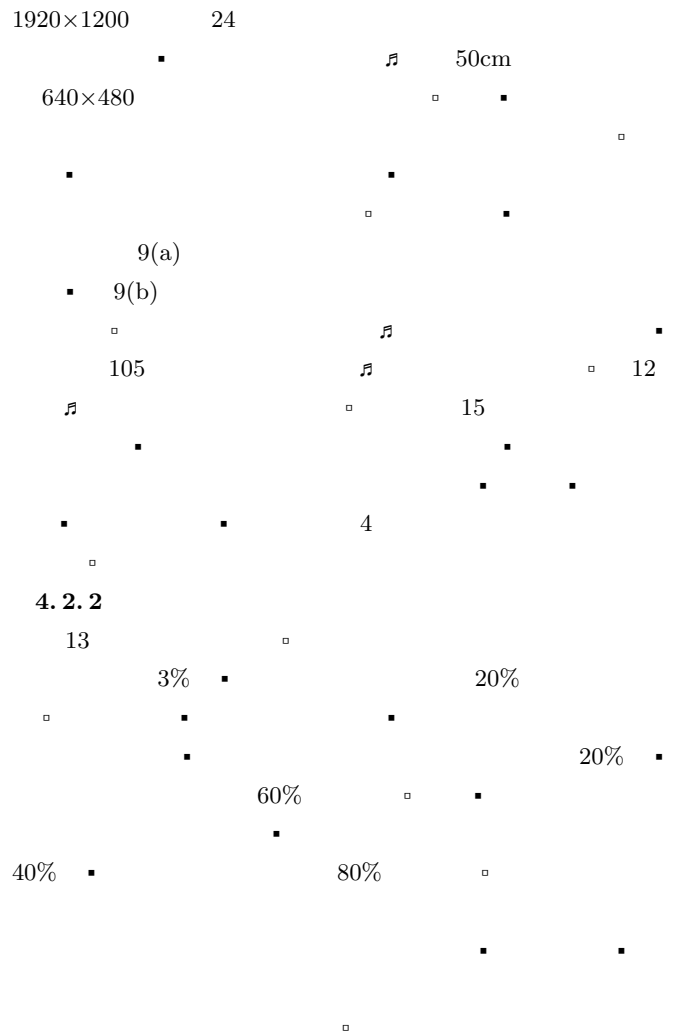
4.1.2



13

4.2 特徴点をまぶたの内側に設定した方法と外側に設定した方法が視線一致に与える影響

4.2.1



4.2.2

(a)

(b)

(c)

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