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# Journal of Computational Physics

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#### ABSTRACT

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at 1% FAR

Table 1. Summary of different works pertaining to face and speech fusion					
Study	Algorithm	DB Size	Covariates of interest	Top individual per-	Fusion
	used			formance	Performance
UK-BWG	Face, voice:	200	Time: 1–2 month	TAR* at 1% FAR#	_
(Mansfield et	Commercial		separation (indoor)	Face: 96.5%	
al., 2001)				Voice: 96%	
Brunelli	Face:	87	Time: 3 sessions, time	Face:	TAR =98.5%
(Brunelli	Hierarchical		unknown (indoor)	TAR = 92% at	at 0.5% FAR
and Falavigna,	correlation			4.5% FAR	
1995)	Voice:			Voice:	
	MFCC			TAR = 63% at	
				15% FAR	
Jain (Jain et al.,	Face:	50	Time: Two weeks (indoor)	TAR at 1% FAR	Face + Voice
1999)	Eigenface			Face: 43%	+
	Voice:			Voice: 96.5%	Fingerprint =
	Cepstrum			Fingerprint: 96%	98.5%
	Coeff. Based				
Sanderson	Face: PCA	43	Time: 3 sessions (indoor)	Equal Error Rate	Equal Error
(Sanderson and	Voice: MFCC		Noise addition to voice	Face: 10%	Rate 2.86%
Paliwal, 2002)				Voice: 12.41%	
Proposed study	Face, voice:	116	Location: Indoor and	TARs at 1% FAR	TAR = 98%

Outdoor (same day)

Noise addition to eye

coordinates

Indoor-Outdoor

Face: 80%

Voice: 67.5%

Table 1. Summary of different works pertaining to face and speech fusion

Commercial

<sup>\*</sup> FAR-False Acceptance Rate

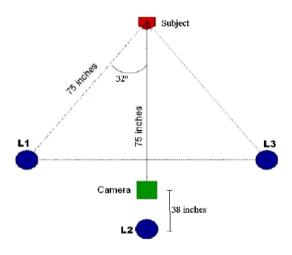


Fig. 1. Studio setup for capturing face images indoor. Three light sources L1, L2, L3 were used in conjunction with normal office lights.

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  - 2...1 A subentry
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- A bulleted list item
- Another one

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Conventionally, in mathematical equations, variables and anything that represents a value appear in italics. All equations should be numbered for easy referencing. The number should appear at the right margin.

$$S'_{pg} = \frac{S_{pg} - \min(S_{pG})}{\max(S_{pG} - \min(S_{pG})}$$
(1)

In mathematical expressions in running text "/" should be used for division (not a horizontal line).

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### References

- [1] C. Vehlow, T. Reinhardt, D. Weiskopf, Visualizing fuzzy overlapping communities in networks, IEEE Trans. Vis. Comput. Graph. 19 (2013) 2486–2495.
- [2] M. E. J. Newman, M. Girvan, Finding and evaluating community structure in networks, Phys. Rev. E. 69 (2004) 026113.
- [3] E. Hullermeier, M. Rifqi, A fuzzy variant of the rand index for comparing clustering structures, in: in Proc. IFSA/EUSFLAT Conf., 2009, pp. 1294–1298.

# Supplementary Material

Supplementary material that may be helpful in the review process should be prepared and provided as a separate electronic file. That file can then be transformed into PDF format and submitted along with the manuscript and graphic files to the appropriate editorial office.