Table 1: Calculation time with the values of the contrast function ϕ (Eq. (12)): They are the averages over 10 runs at the 10th layer (approximation) and the 720th layer (convergence) in LMICA (the normal one and the one without the mapping phase). In addition, those of 10 iterations in MaxKurt (approximately corresponding to $L = 10 \times 72 = 720$) are shown. They were calculated in Intel 2.8GHz CPU.

	LMICA	LMICA without mapping	MaxKurt (10 iterations)
10th layer	22sec (4.91)	9.3sec (47.6)	
720th layer	1660sec (4.57)	670sec (4.57)	940sec (4.57)

of quite high-dimensional data space, such as the text mining. In addition, we are trying to find out the pre-whitening method suitable for LMICA. Some normalization techniques in the local-ICA phase may be promising.

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