method	# sub	the object of PCA	linearity	f	h
sampling geodesic flow	a set	original samples	linear	NN	SURF
geodesic flow kernel	a set	original samples	non-linear	1-NN	SURF
mercer kernel	a set	kernel Gram matrix	non-linear	NN	SURF
dictionary learning	a set	original samples	linear	SVM	dictionary
subspace alignment	2	original samples	linear	1-NN, SVM	SURF, dense SIFT