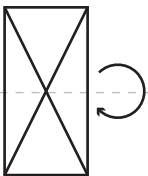
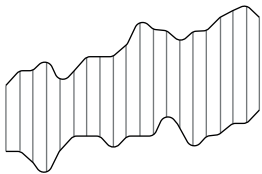
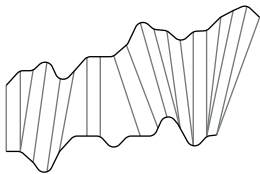
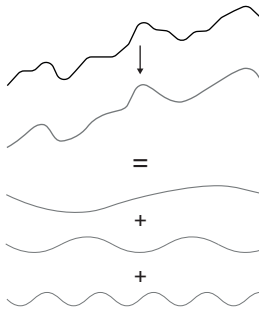
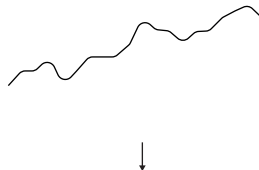
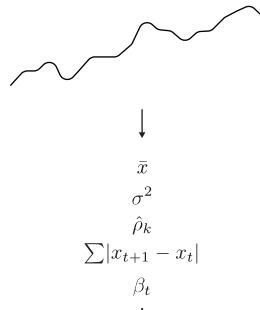
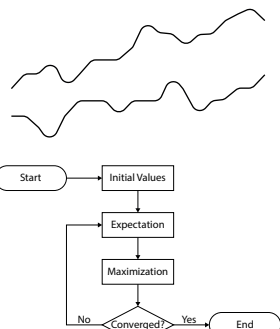


	raw data		representation			embedded
	in-time-based	transform-based	shape-based	model-based	feature-based	iterative-based
raw data	X	X	X	X	X	X
transformation		X				
representation			X	X	X	
clustering	X	X	X	X	X	
example						
algorithm	LKMA	DTW	DFT	VAR	tsfresh	GBTM
notes	<ul style="list-style-type: none"> <li>- low interpretability</li> <li>- same interval (if not transformed)</li> <li>- same length (no missing)</li> <li>- no parameter dependence (ignore temporal order)</li> <li>- sensitive to offset (if not transformed)</li> <li>- sensitive to noise</li> <li>+ no shape assumed (incl. sudden changes)</li> <li>+ fast modeling</li> <li>+ readily available software</li> <li>+ cluster interpretation established in the field</li> </ul>		<ul style="list-style-type: none"> <li>- dangerous if model fit is poor</li> <li>- assumptions violated (poor fit)</li> <li>- too few observations (poor fit)</li> <li>+ reduced dimensional space</li> <li>+ more accurate than raw</li> <li>+ fast modeling</li> <li>+ readily available software</li> <li>+ robust to missing data (b/c calculated on multiple observations)</li> <li>+ varying intervals</li> <li>+ varying lengths</li> <li>+ often scalable performance (e.g., model only needs to be fitted once)</li> <li>+ relatively few observations per trajectory</li> <li>+ high interpretability</li> <li>+ use domain knowledge to choose summarize features)</li> </ul>			<ul style="list-style-type: none"> <li>- often assume the same parametric distribution</li> <li>- dangerous if model fit is poor (e.g., over- or under fitting)</li> <li>- assumptions violated (fit)</li> <li>- too few observations (fit)</li> <li>- slower with more complex models</li> <li>+ robust to missing data (b/c calculated on multiple observations)</li> <li>+ varying intervals</li> <li>+ varying lengths</li> <li>+ interpretable (e.g., distinct cluster trajectories)</li> <li>+ good for prediction</li> </ul>