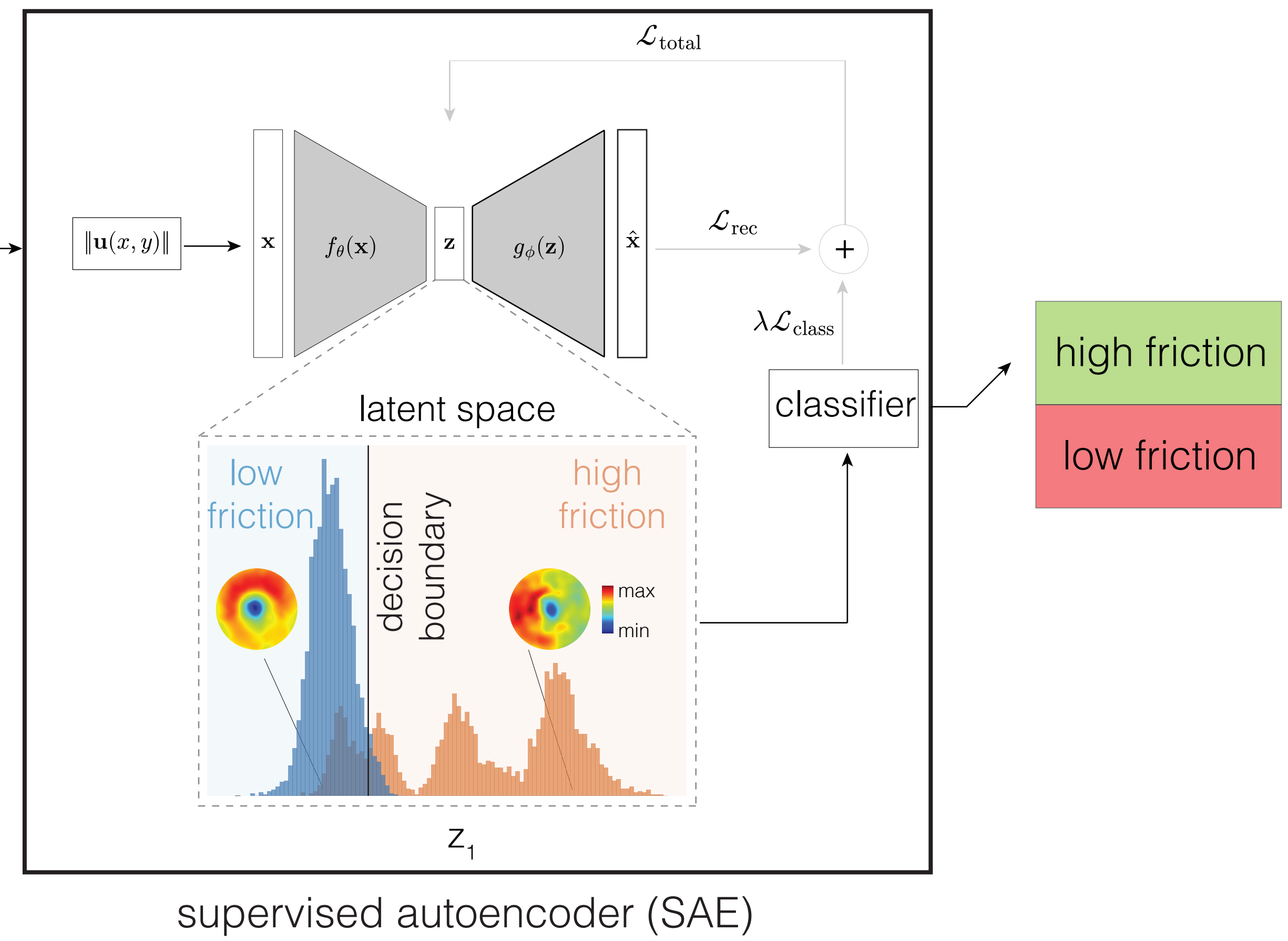


image processing & feature tracking



supervised autoencoder (SAE)

Friction shapes lateral deformation in soft tactile skins

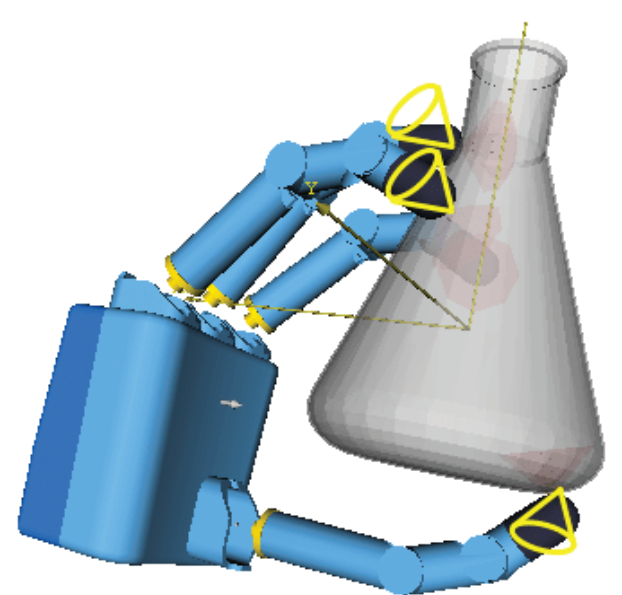


Video!



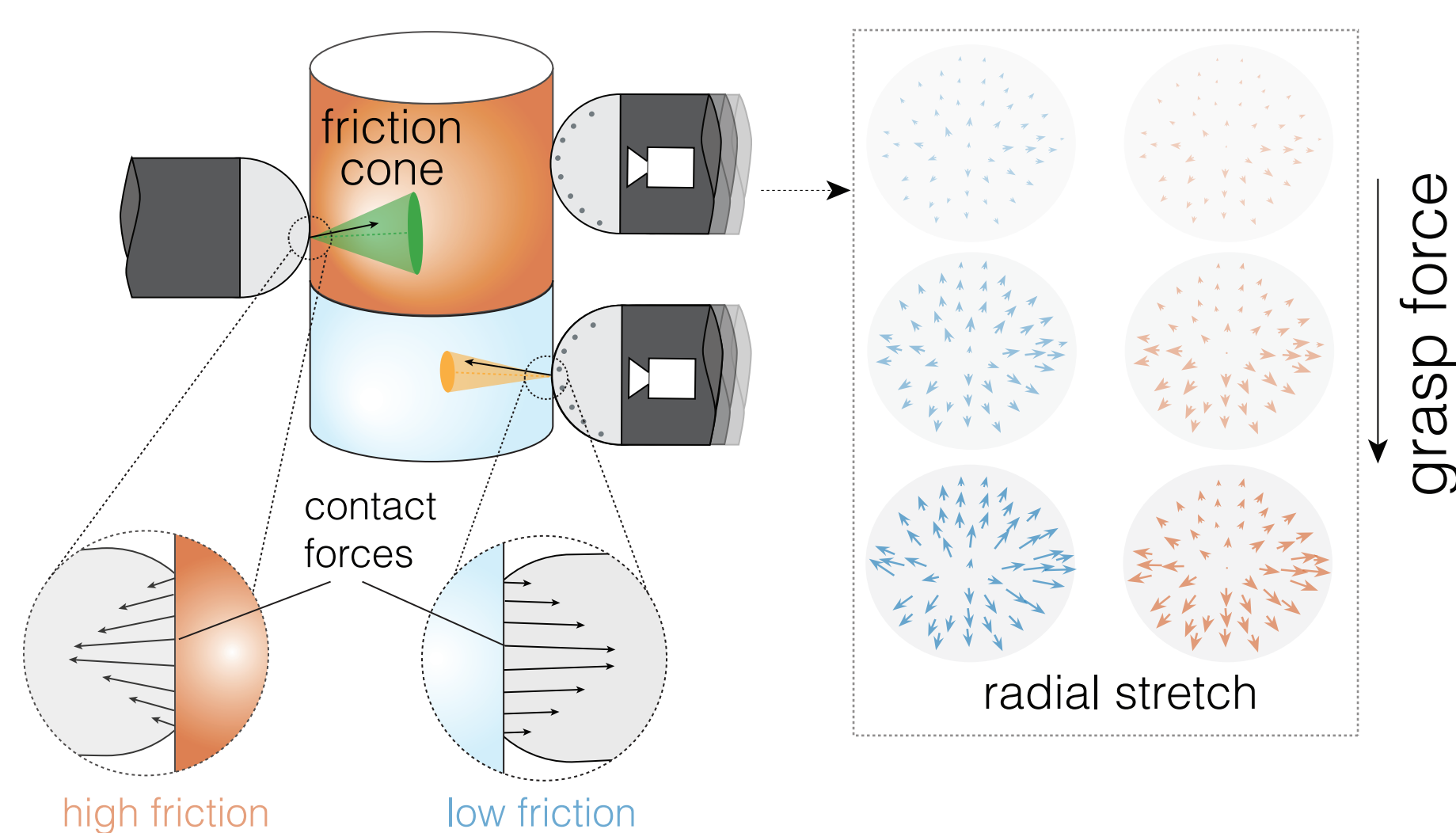
Contact us

1. Background



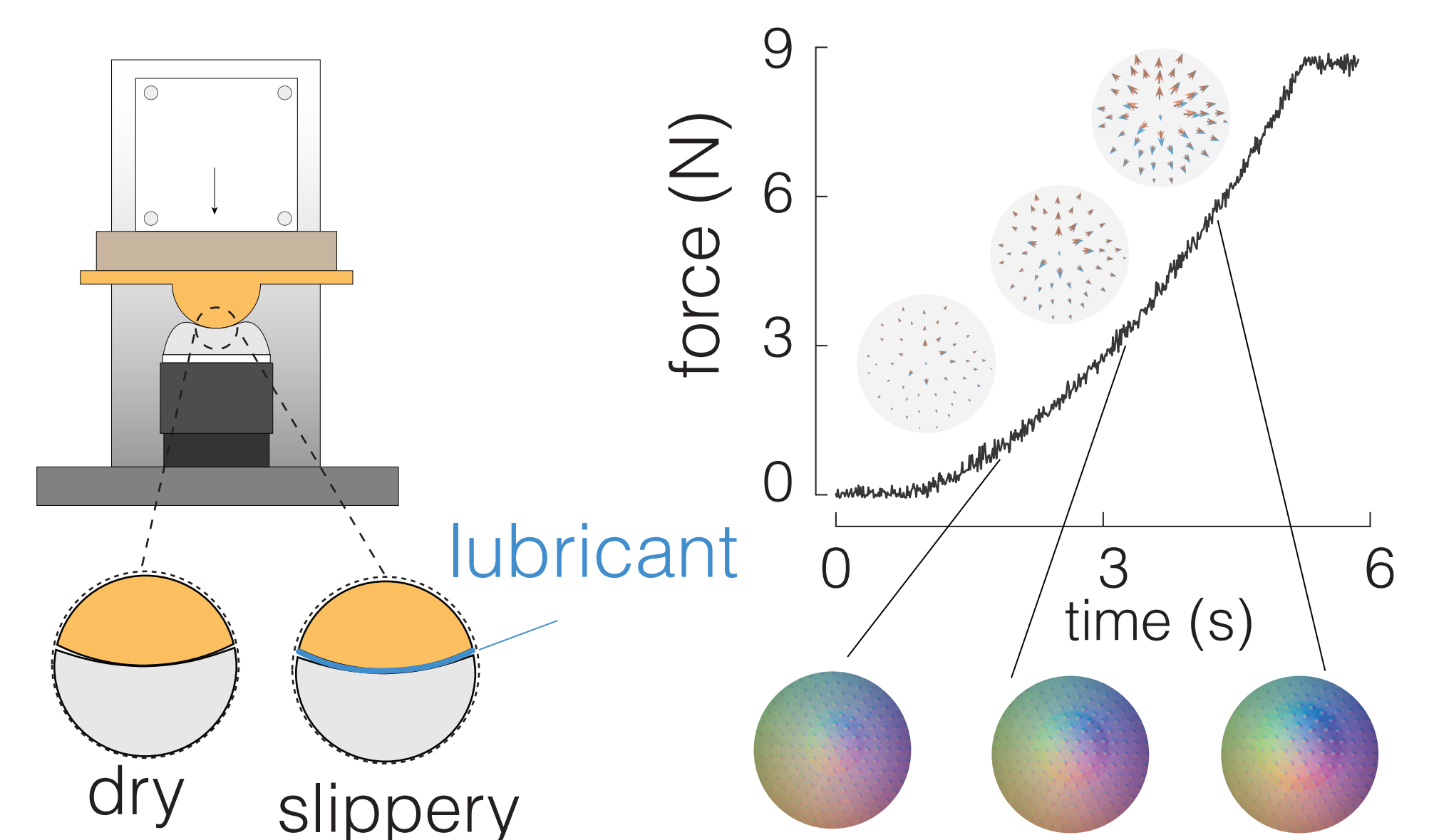
Force closure has to assume a friction coefficient.

At first touch, the lateral skin deformation encodes slipperiness.

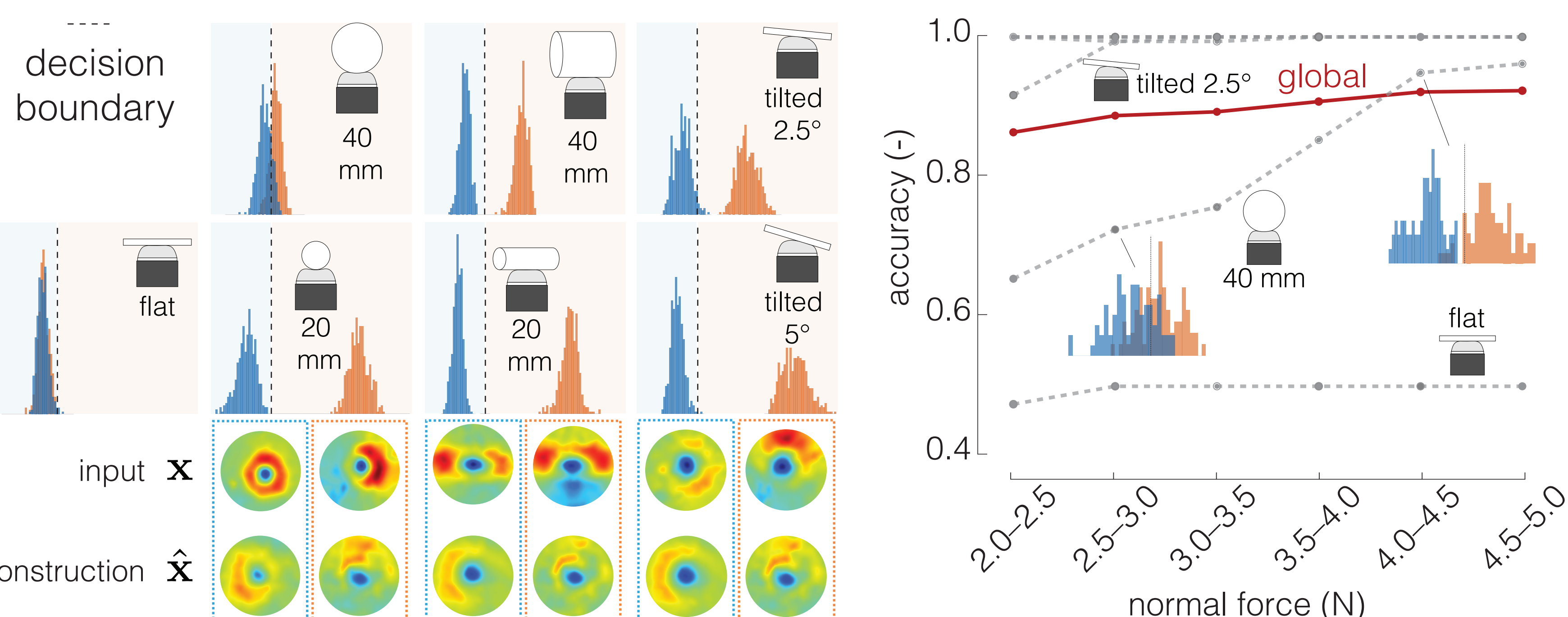


2. Data collection

We collected dense measurements of tangential deformations across different geometries.



3. Latent structure of friction



The SAE learns a geometry-invariant representation. Only one latent coordinate can separate the friction conditions.

4. Robotic force closure

		conditions	
		lubricated	dry
estimation	low friction	N=30	
	high friction		N=30

Friction estimation generalizes to unseen objects.

