An Interface between Grassmann manifolds and vector spaces

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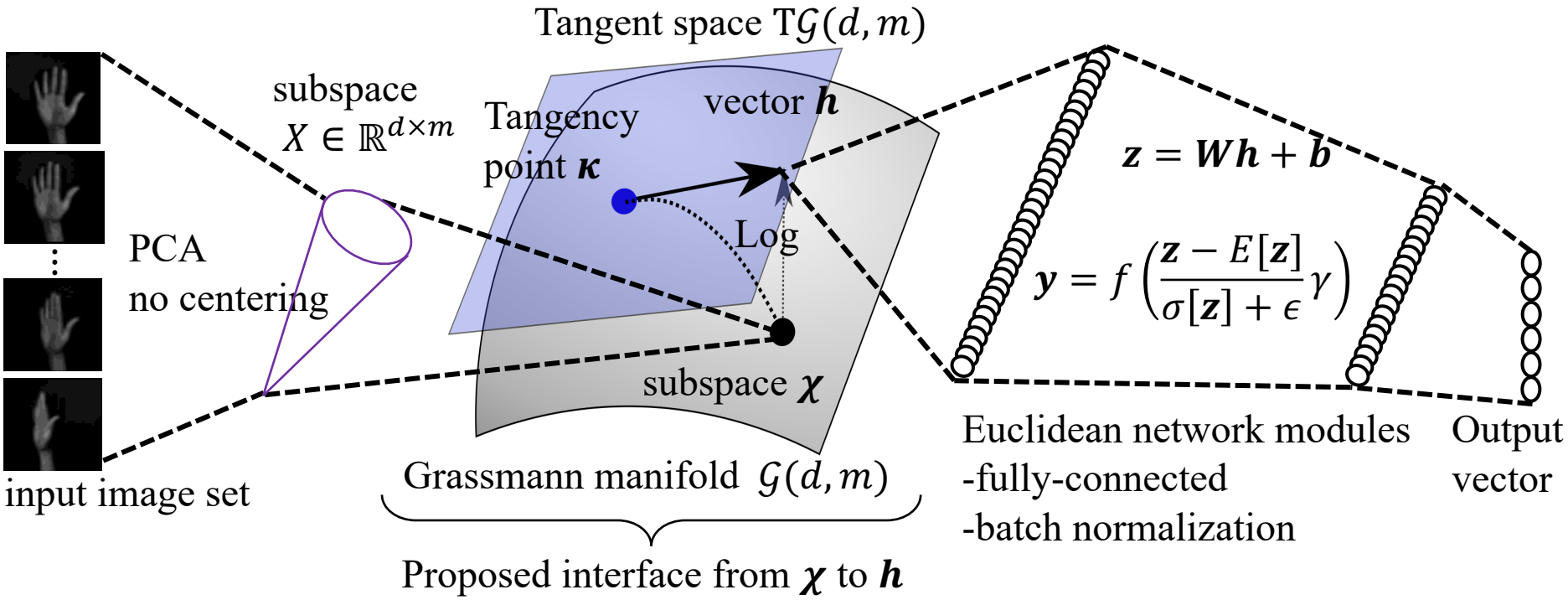
- We propose a **network layer** to map a subspace to a vector.
- We attempt to connect **subspace** representation and **deep learning**.



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- The **key idea** is to formulate the manifold logarithmic map (log) as an **end-to-end learnable model** that maximizes discrimination.
- Please come to my **poster** to discuss it further.

- tSNE visualizations of 2 classes of hand shapes.
- Left: tangent vectors at the Karcher mean,
- Right plot: tangent vectors at the log model learned tangent space.