* Set the context: State clearly what the paper is about, for whom it is interesting, and why the paper is relevant for the specific audience and beyond.
* Carefully assert the novelty of the proposed method. How does it differ from and improve upon existing work?
* Have an explicit section with contributions.  Be clear what your technical contributions are (or will be) and state any non-technical contributions that are significant.
* Discuss related work.
  + This discussion can be used to establish the problem, i.e. identify where existing methods cannot do the job. Differentiate from previous work, i.e. what is new and better
  + Demonstrate a good overview of the field. It's important not to miss relevant literature! This doesn’t have to be complete at this point, just add whatever you see as relevant as of now).
* Add a placeholder results section where you describe the hypothetical results. The idea is to convince everyone that if these results will be obtained, the paper would make for a strong submission.

Why hand animation?

**“This hybrid effect has a powerful impact in VR because your real hands can now actually pass through (or disappear behind) virtual objects.** The hands interact properly with other 3D objects because they are 3D – complete with the interactive and visual capabilities that you expect.”

Choose a representation of a hand while keeping the entire modeling-tracking-animation pipeline in mind.

Why user-specific?

-Precision of the model is a bottleneck of tracking

- VR is more real if you see your hand

Why not mesh but rigid bodies?

* Reflects structure of the problem: hand is a articulated rigid object, not need to additionally regularize anything
* Tracking means finding the closest points -> best idea is to use small number of primitives
* Standard skinning is not good enough for a hand -> primitives make implicit skinning easy to use
* Use the same parameters in modeling, tracking and animation -> no retargeting that can create additional imprecision

Why convolution surfaces and user data

* Hand is hard to precisely represent with a small number of primitives. There is an obvious tradeoff between the number and the precision
* Maybe the problem can be manually solved statically, but what about dynamics? Infinite loop of readjustment
* There is not primitive geometric shape to represent a palm. Spheres? Need infinite number to get close. Convex bodies? Not closed form closest point query anymore -> can find the gradient.
* Take motivation from avatars or Sofien’s paper
* Triangle mesh is an approximation that can have an arbitrary precision, but no real-time hand tracking paper used it for hand model representation yet.
* Cylinders model became I bouttleneck, you can see that the palm and finders orientation is wrong, because the palm model is wrong
* City some study that users do not fill virtual reality so good if not with their hands