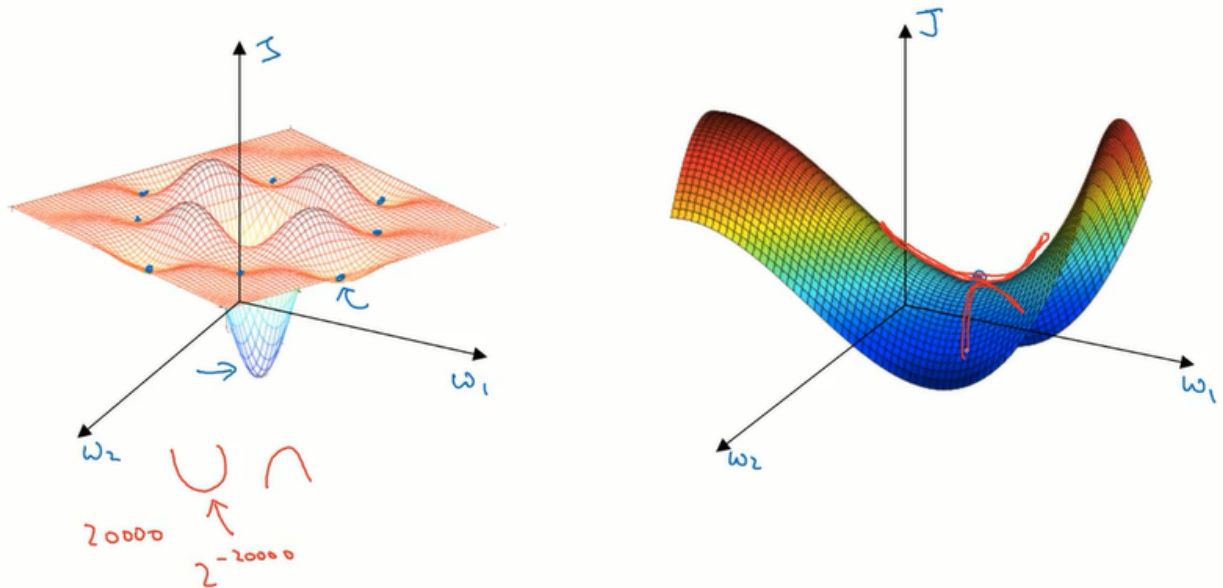


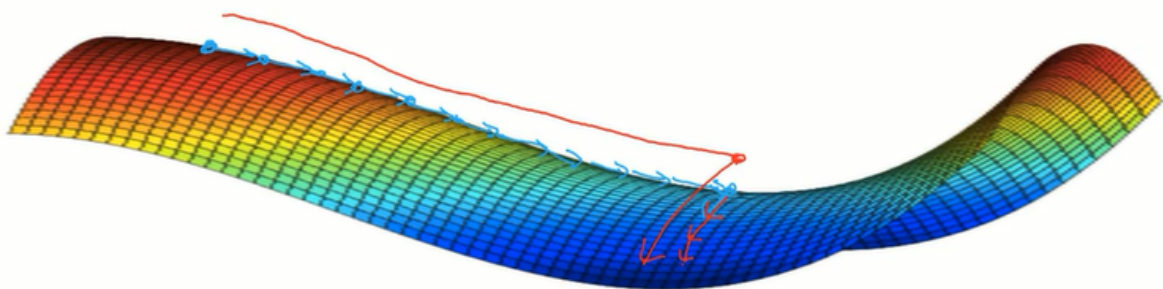
## Local optima

### Local optima in neural networks



- actually, most points are **saddle-points** in a high dimensional parameter space
  - in some directions going up, but some going down

### Problem of plateaus



- Unlikely to get stuck in a bad local optima
- Plateaus can make learning slow