## Summary of Lecture 15

Reading: [Arora-Barak (AB)] 7.5

- We basically covered two theorems in the lecture: (1) $\mathrm{BPP} \subseteq \mathrm{P} /$ poly and (2) $\mathrm{BPP} \subseteq \Sigma_{2} \cap \Pi_{2}$.
- A common technique we used here is to apply the union bound and show the existence of a "good" seed by a probabilistic argument.

