Universally Baire sets and Strongly Compact Cardinals

In these lectures we will cover the background material and sketch part of the proof of a recent theorem that if there is a strongly compact cardinal then every universally Baire set is determined. This involves first showing that if there is a strongly compact cardinal then every universally Baire set admits a universally Baire scale, and that the universally Baire sets are very strongly closed, for example if A is universally Baire then so are all the sets which can be constructed from A and the set R of all real numbers. This has been known for many years but it was never clear if one could obtain determinacy from this until now.