Lecture 12

1 Alternating Complexity

Basic Results:
–Choice machines accept only r.e. languages.
–Decisive Choice machines accept exactly recursive languages.
–Compactness result: all languages are accepted in finite resources (time, space, etc)

2 Alternating Space and Time

Theorem: $ATIME(t) \subseteq DSPACE(t)$

Discussion: how similar is DSPACE and ATIME? We have a Savagelike theorem: $NSPACE(s) \subseteq ATIME(s^2)$ (if $s^2 < n$, we need a special machine model).

Theorem: $PrTIME(t) \subseteq ATIME(t)$