CFL

Pumpling Lemma ex with

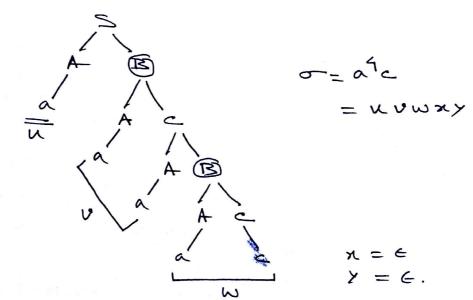
one of UXx being E.

Whatever in the openginal CFL has been

steduced to one with CNF form.

Let $S \rightarrow AB$ $B \rightarrow AC$ $A \rightarrow a$ $C \rightarrow C$

ecolores.



he pumping lemma applies to all CFL, including those having 'F'. But we arigued with CNF form w/o'E'.

This is no issue at all, given CFLL, take L'= £ - {E}

Create CNG grammar for L' & prove the lemma.

Consider G" = G' with {S -> E'}

to get back ' in the language.

The lemma holds vacuously for the string ' i'

of length 'o' that The lemma statement in -- then'. For 'E' the 'if fort is folse. So lemma in vacuously time.