prob
μ measure $\quad \mu\left(\dot{\bigcup} A_i\right) = \sum \mu(A_i)$

$\mu(A)$
A Borel

(A) $= \{x : \mu(\{x\}) > 0\}$ obtained from open Borel sets by taking unions and complements.

$B = [0,1)$

$\underline{B} = \bigcup_n [0, 1 - \frac{1}{n}]$

Picture / Quiz set of atoms is countable

countable set is always Borel

$= \bigcup_{\in \text{countable}} \{x\}$

no doubt : all mass will eventually disappear when zooming in.

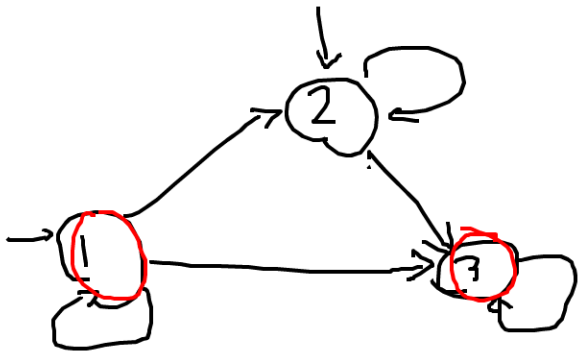
$A_c = \{x : \mu(\{x\}) \geq c\}$

$A = \bigcup_{c \in \mathbb{Q}^{>0}} A_c$

countable union

$c = \frac{1}{2}$

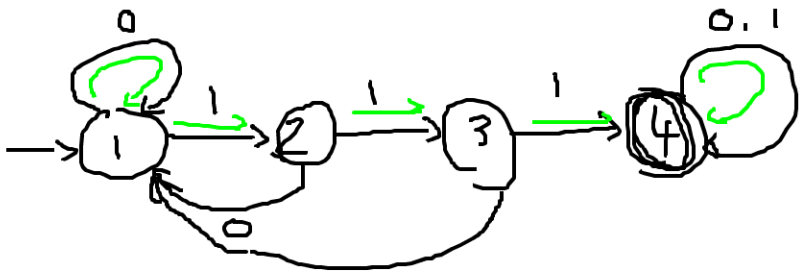
T $\quad$ $T^{\infty} = A_c$



$\{w : w = 01101 \checkmark\}$

$0|101*$

$\{w : w \text{ contains } 111\} = *111*$ 666



01110

010110

11100

wild card

*

ls *.txt

list all files that end with .txt

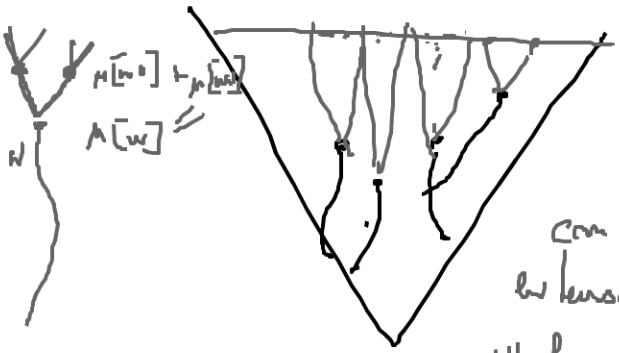
LEMMA: $\{v_1, \ldots, v_n\}$ $\{w_1, \ldots, w_m\}$

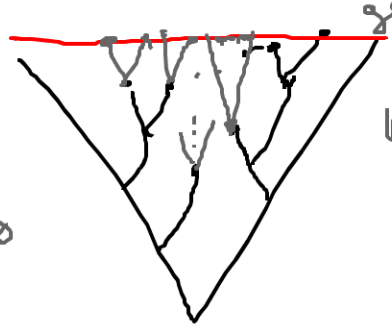
prefix-free

$$\bigcup [v_i] = \bigcup [w_j]$$

$$\Rightarrow \sum \mu[v_i] = \sum \mu[w_j]$$

show: two prefix-free set of strings of some length generating same open set must be identical





can do this by induction

while: (1) preserve open set generated

(2) preserve measure