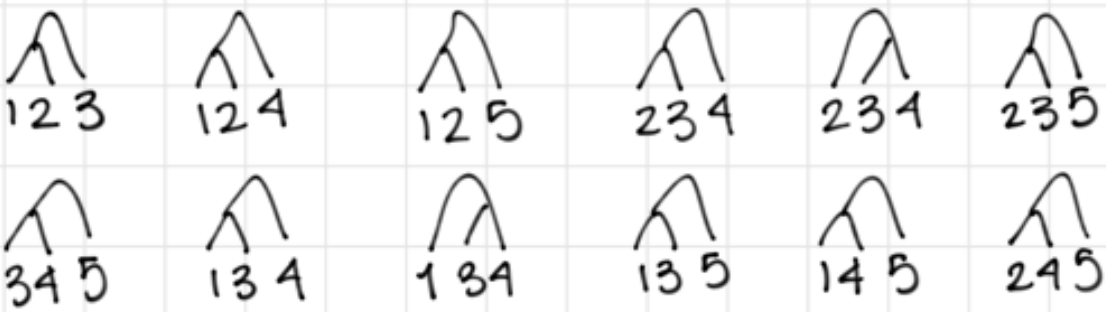
Jansson 2006

Output:

Input: Leaf set $L = \{1,2,3,4,5\}$

Triplet set:



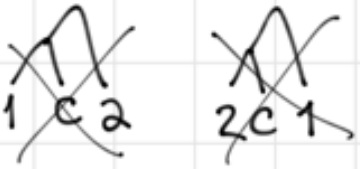
level One (1) $\forall x_1 \in L, x_2 \in L$ (even $x_1 = x_2$) compute $SN(\{x_1, x_2\})$

$\boxed{x_1 = 1, x_2 = 2}$

$X = \{1\}$ $Z = \{2\}$

- $z = 2 \rightarrow a = 1$ $L \setminus (X \cup Z) = \{3,4,5\}$

$SN\{1,2\} = \{1,2\}$



$\Rightarrow X = \{1,2\}$ $Z = \phi$

Note $SN\{x_1, x\} = \{x\}$ (Proof of lemma 7)

$SN(1,1) = 1$

$SN(2,2) = 2$

$SN(3,3) = 3$

$SN(4,4) = 4$

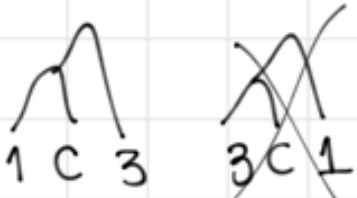
$SN(5,5) = 5$

$\rightarrow SN(1,2) = \{1,2\}$

$\boxed{X_1 = 1 \;,\; X_2 = 3}$

$X = \{1\} \quad Z = \{3\}$

- $z = 3 \rightarrow a = 1$



$C = 2 \Rightarrow Z = \{2,3\}$

$X = \{1,3\} \quad Z = \{2\}$

- $z = 2 \rightarrow a = 3$
- $a = 1$

$\Rightarrow SN(1,3) = \{1,2,3\}$

$X = \{1,2,3\} \quad Z = \phi$

continue ∀ SV

14
15
23
24
25

34
35
45

Level One (2) $SN = SN_{11}, SN_{22}, SN_{33}, SN_{44}, SN_{55},$
$SN_{12}, SN_{13}, SN_{14}, SN_{15}, SN_{23},$
$SN_{24}, SN_{25}, SN_{34}, SN_{35}, SN_{45}$

$q = 15$

not all! Need to be the set of "maximal SN"

- $SN(X,y) = \perp \Rightarrow$ trivial
- $SN(X,y)$ maximal if
  - nontrivial
  - not a proper subset of any nontrivial $SN(y_1, y_2)$

trivial or proper subset of a nontrivial SN $\Rightarrow$ <u>not</u> maximal

levelOne (3) $\forall SN_i$; if $|SN_i| \geq 3 \Rightarrow N_i = levelOne(T|SN_i)$

if $|SN_i| < 3 \Rightarrow N_i =$  or