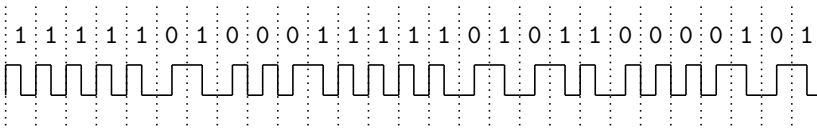


## Matrices

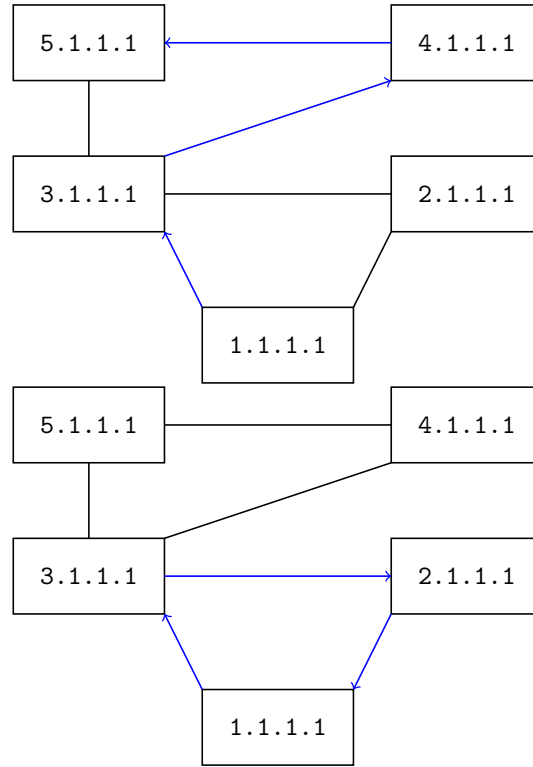
$$C = \left( \begin{array}{ccc|ccc} a_{11} & \dots & * & * & \dots & * \\ \vdots & \ddots & \vdots & \vdots & & \vdots \\ 0 & \dots & a_{rr} & * & \dots & * \\ \hline 0 & \dots & 0 & 0 & \dots & 0 \\ \vdots & & \vdots & \vdots & & \vdots \\ 0 & \dots & 0 & 0 & \dots & 0 \\ \hline & & & b_{11} & \dots & * \\ & & & \vdots & \ddots & \vdots \\ & & & 0 & \dots & b_{ss} \\ & & & \hline & & & 0 & \dots & 0 \\ & & & \vdots & & \vdots \\ & & & 0 & \dots & 0 \end{array} \right)$$

$$C' = \left( \begin{array}{cccccc|ccc} a_{11} & \dots & \dots & \dots & \dots & * & * & \dots & * \\ \vdots & & \ddots & & & \vdots & \vdots & & \vdots \\ \vdots & & & a_{rr} & & \vdots & \vdots & & \vdots \\ \vdots & & & & b_{11} & \vdots & \vdots & & \vdots \\ \vdots & & & & & \vdots & \vdots & & \vdots \\ \vdots & & & & & \vdots & \vdots & & \vdots \\ 0 & \dots & \dots & \dots & \dots & b_{ss} & * & \dots & * \\ \hline 0 & \dots & \dots & \dots & \dots & 0 & 0 & \dots & 0 \\ \vdots & & & & & \vdots & \vdots & & \vdots \\ 0 & \dots & \dots & \dots & \dots & 0 & 0 & \dots & 0 \end{array} \right)$$

## Manchester Encoding



### Network Package Routing



### Swapping Algorithm Description

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**Algorithm 1** Swapping values

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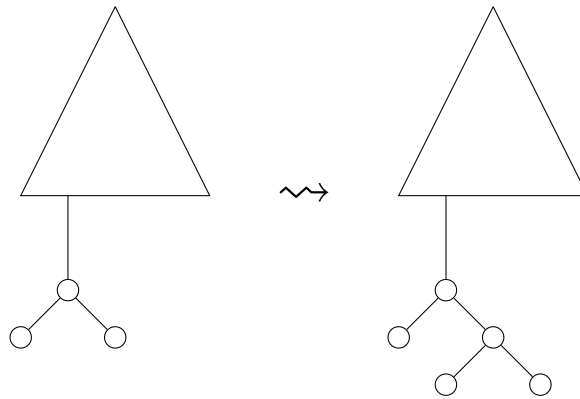
```

1: procedure SWAP( $a, b$ )
2:    $t \leftarrow a$ 
3:    $a \leftarrow b$ 
4:    $b \leftarrow t$ 

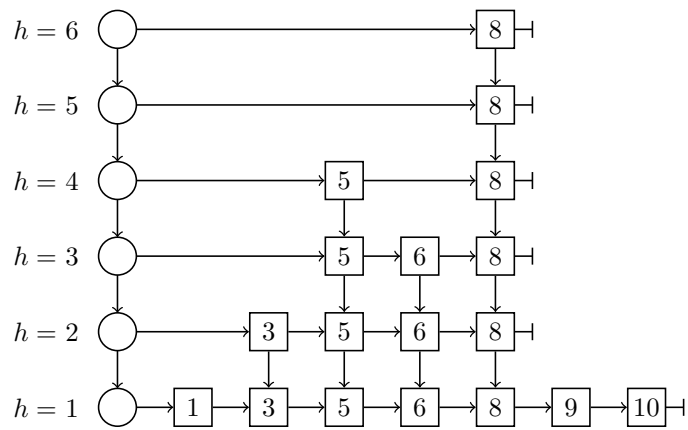
```

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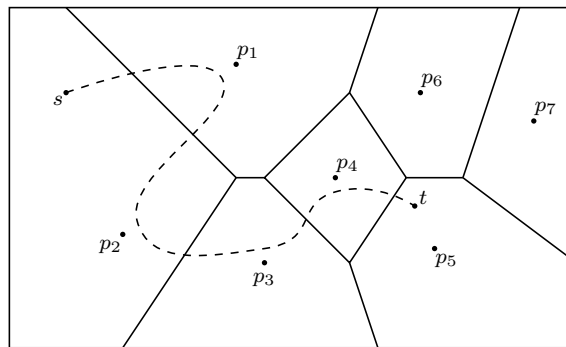
### Binary Trees



### Skip List

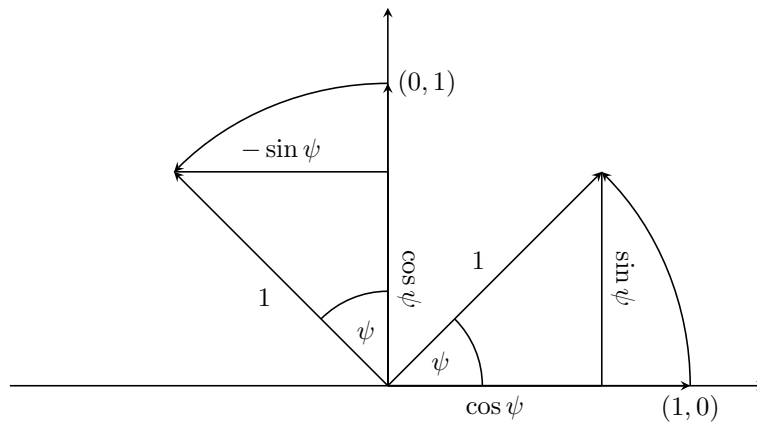


### Countinuous First Neighbors



### Rotation in der Ebene

$$\begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} x \\ 0 \end{pmatrix} + \begin{pmatrix} 0 \\ y \end{pmatrix} \mapsto \begin{pmatrix} \cos(\psi) \cdot x - \sin(\psi) \cdot y \\ \sin(\psi) \cdot x + \cos(\psi) \cdot y \end{pmatrix}$$



### Three-dimensional Borel Sets

