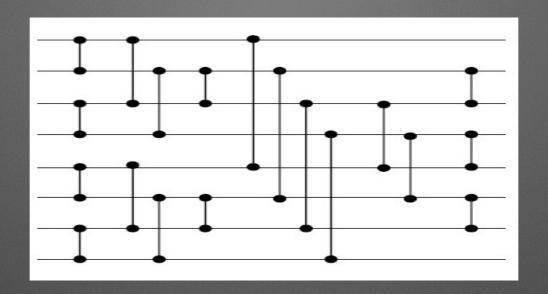
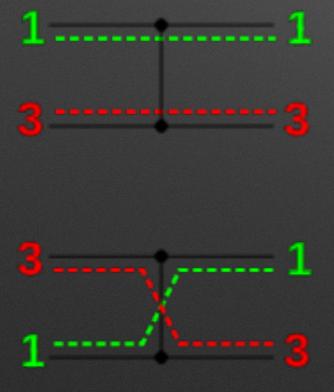
Sorteernetwerken van Optimale Grootte

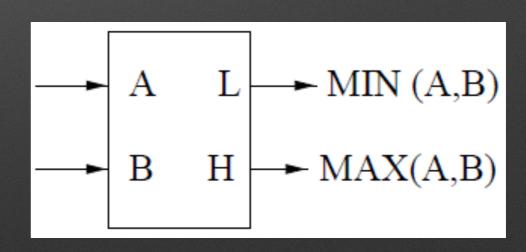
Mathias Dekempeneer Vincent Derkinderen

Begeleider: Tom Schrijvers

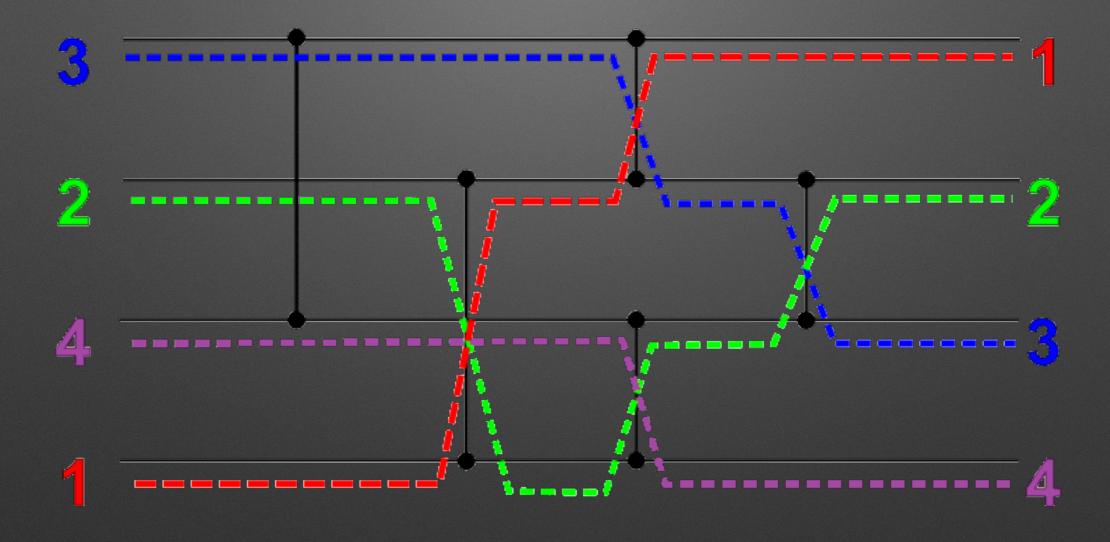
Comparator Netwerk



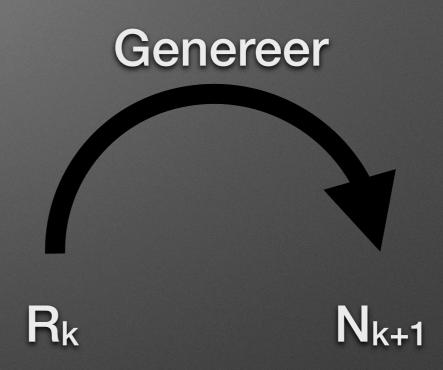




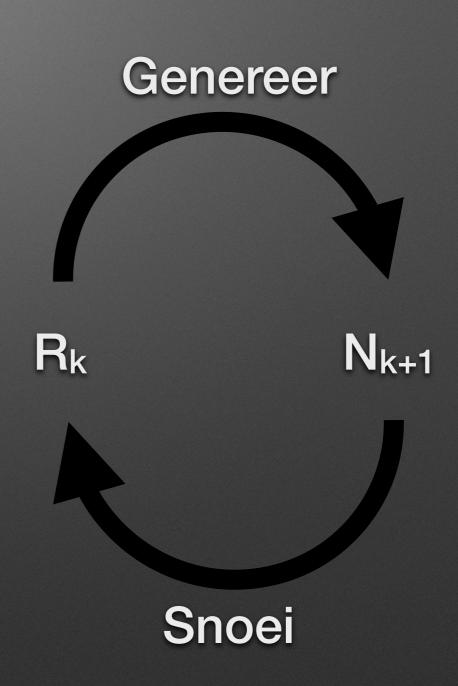
Sorteernetwerk



 Genereer: toevoegen alle mogelijke comparatoren



- Genereer: toevoegen alle mogelijke comparatoren
- Snoei: subsumes principe

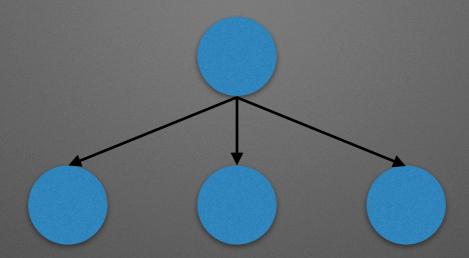


 R_0



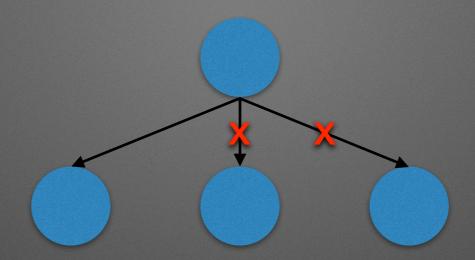
 R_0

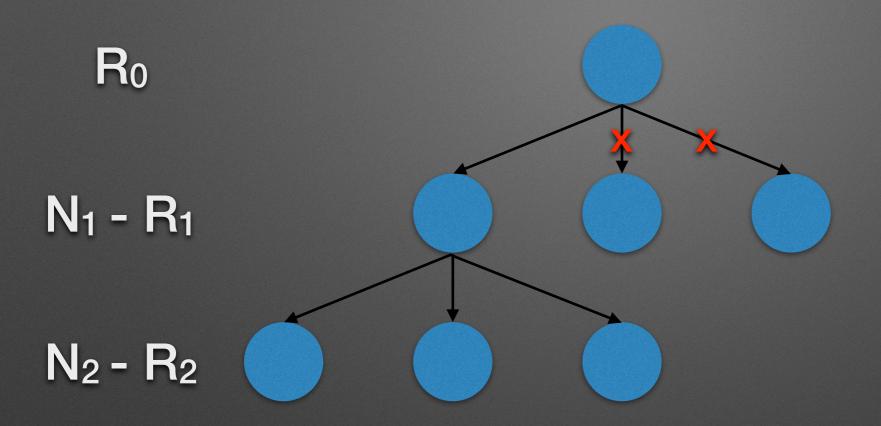
 $N_1 - R_1$

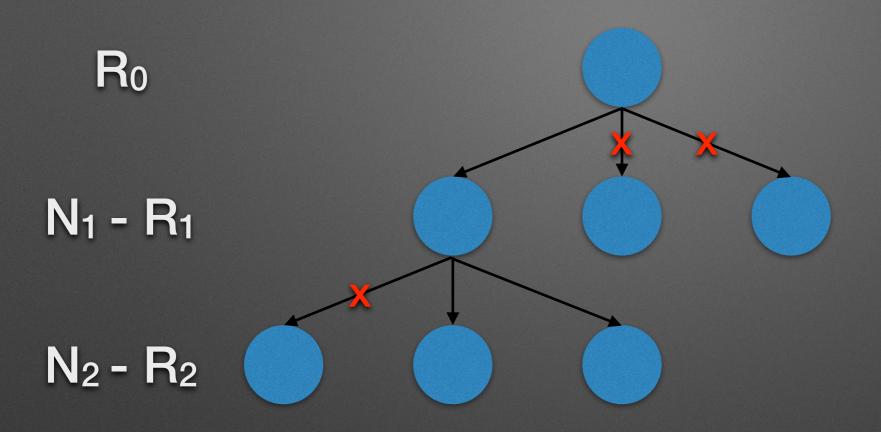


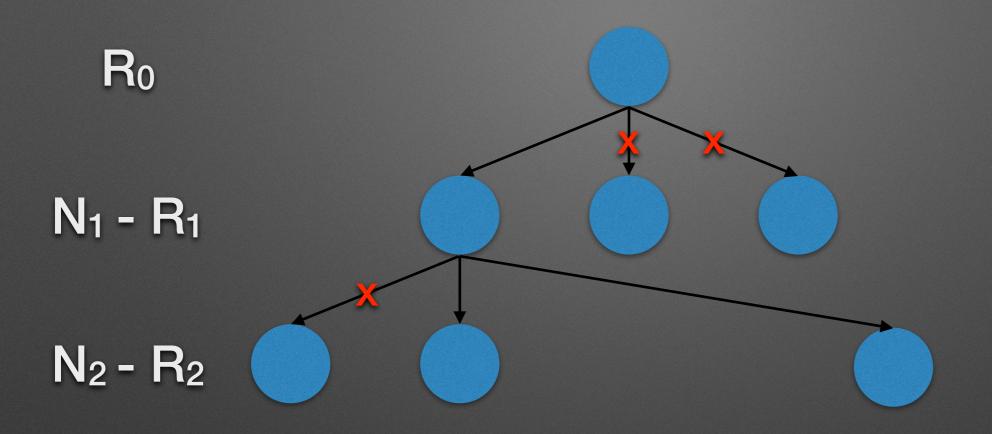
 R_0

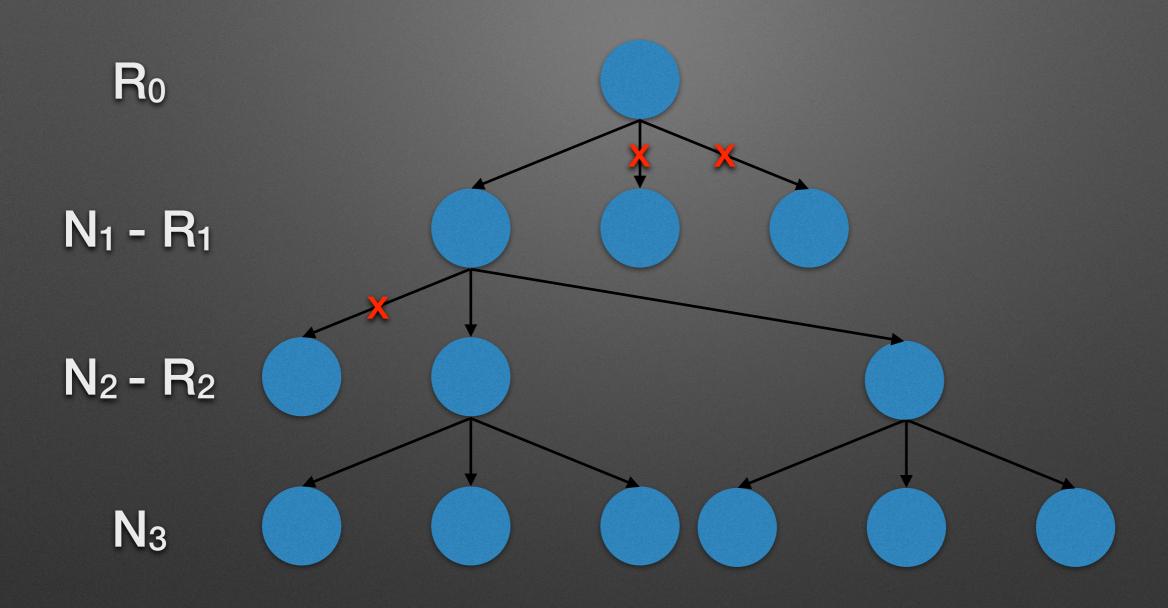
 $N_1 - R_1$

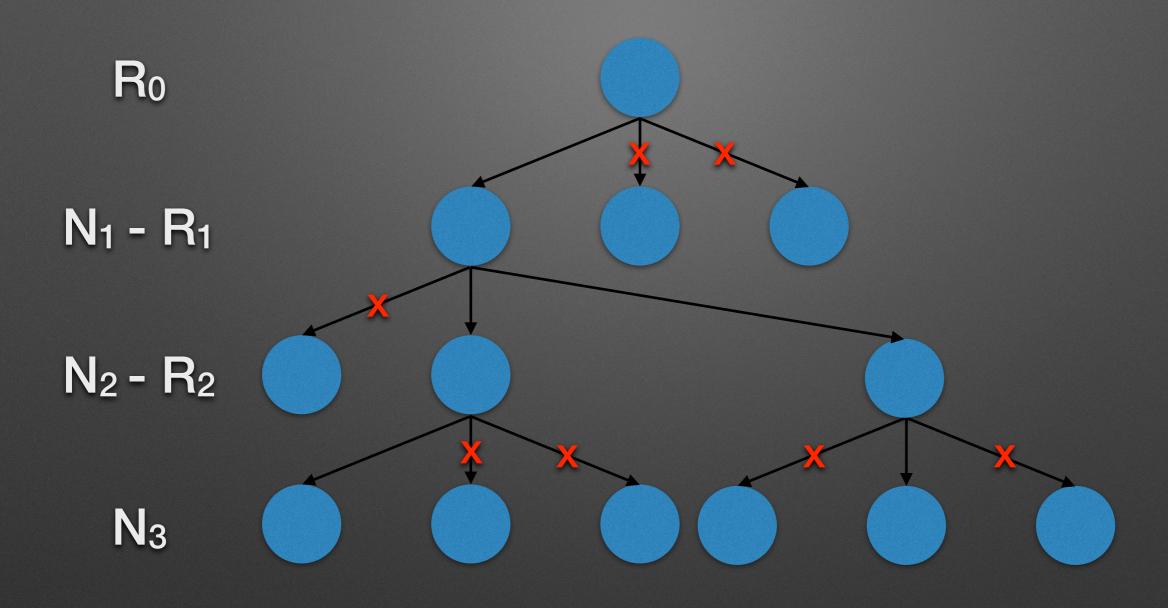


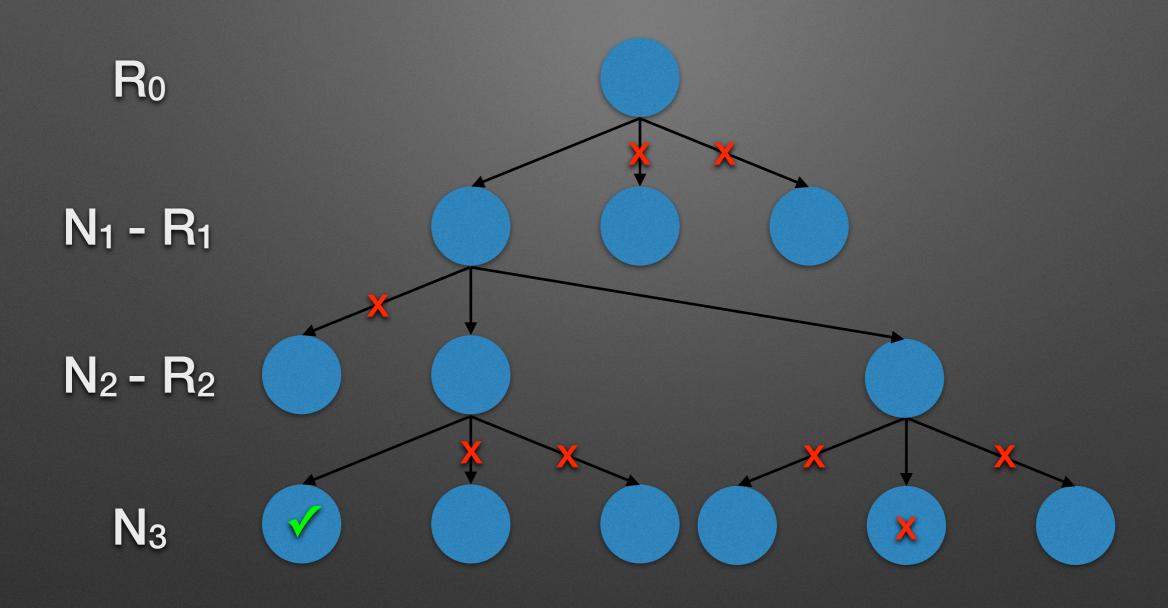












 Beschreven in "Twenty-Five Comparators is Optimal when Sorting Nine Inputs (and Twenty-Nine for Ten)" (Codish et al.)

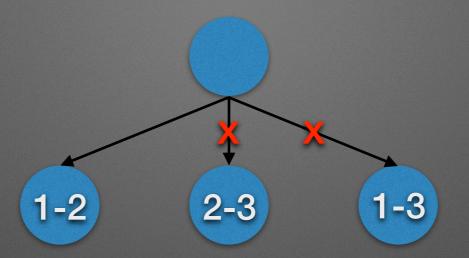
- Beschreven in "Twenty-Five Comparators is Optimal when Sorting Nine Inputs (and Twenty-Nine for Ten)" (Codish et al.)
- Ca subsumes Cb ⇔ Ca wordt gedekt door Cb

- Beschreven in "Twenty-Five Comparators is Optimal when Sorting Nine Inputs (and Twenty-Nine for Ten)" (Codish et al.)
- C_a subsumes C_b ⇔ C_a wordt gedekt door C_b
- Verwijder de netwerken die anderen dekken

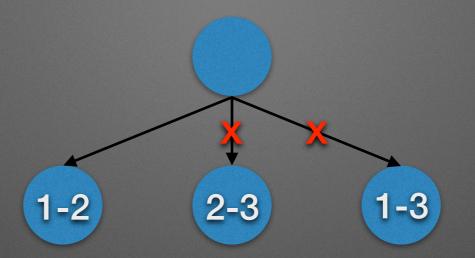
Gevonden sorteernetwerk:



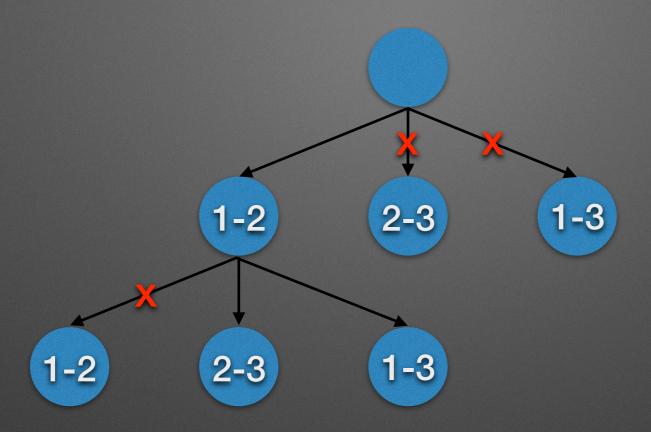
Gevonden sorteernetwerk:



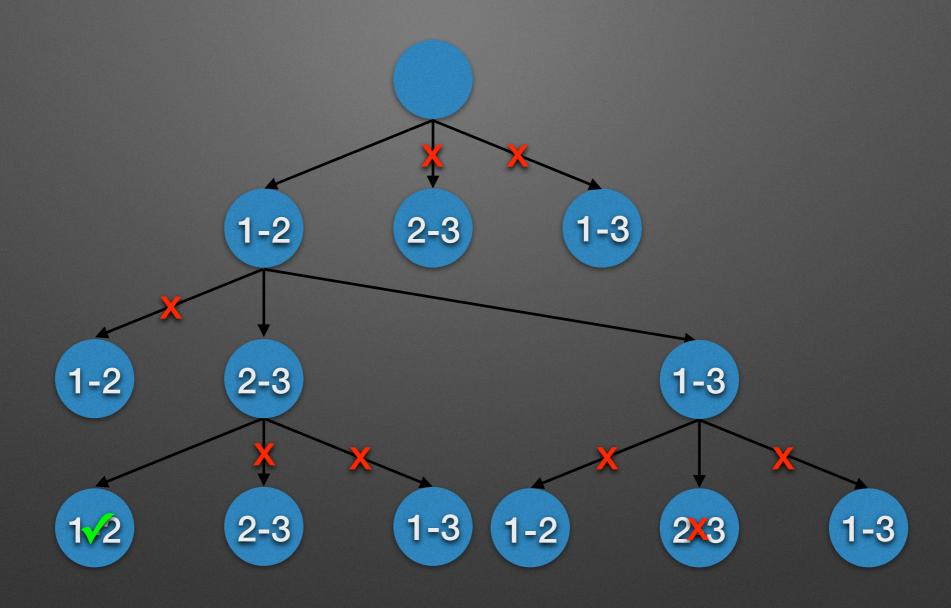
Gevonden sorteernetwerk:



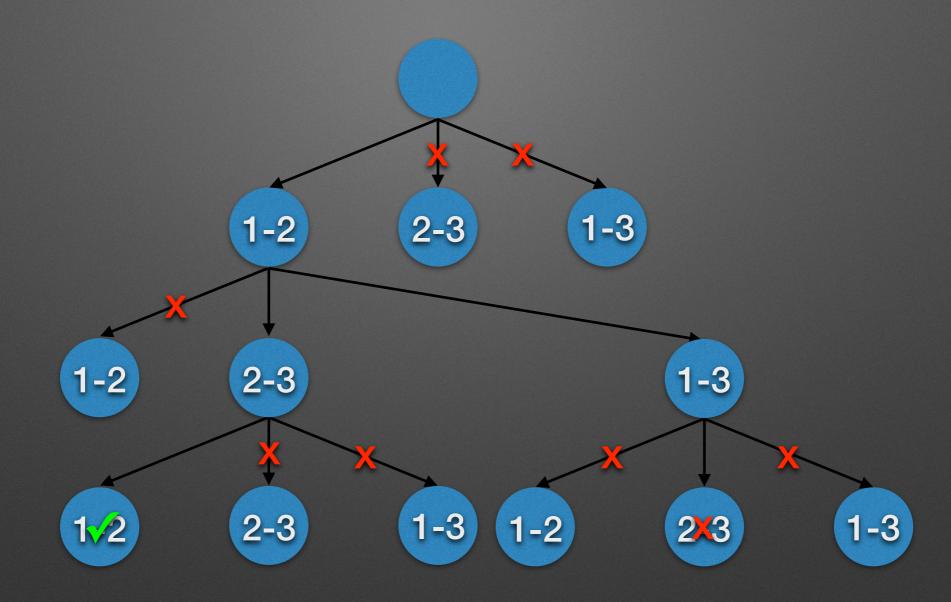
Gevonden sorteernetwerk: (1-2)



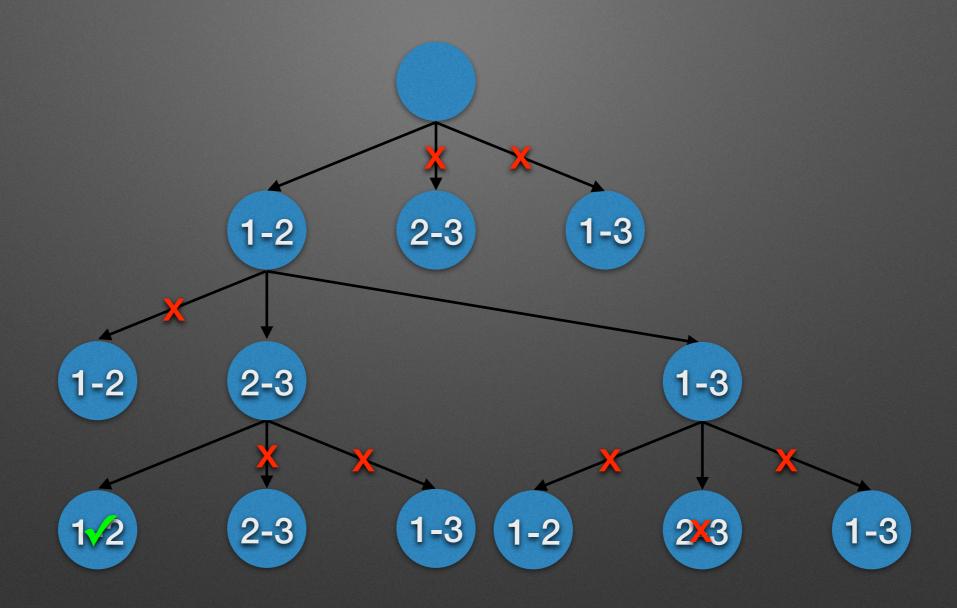
Gevonden sorteernetwerk: (1-2)



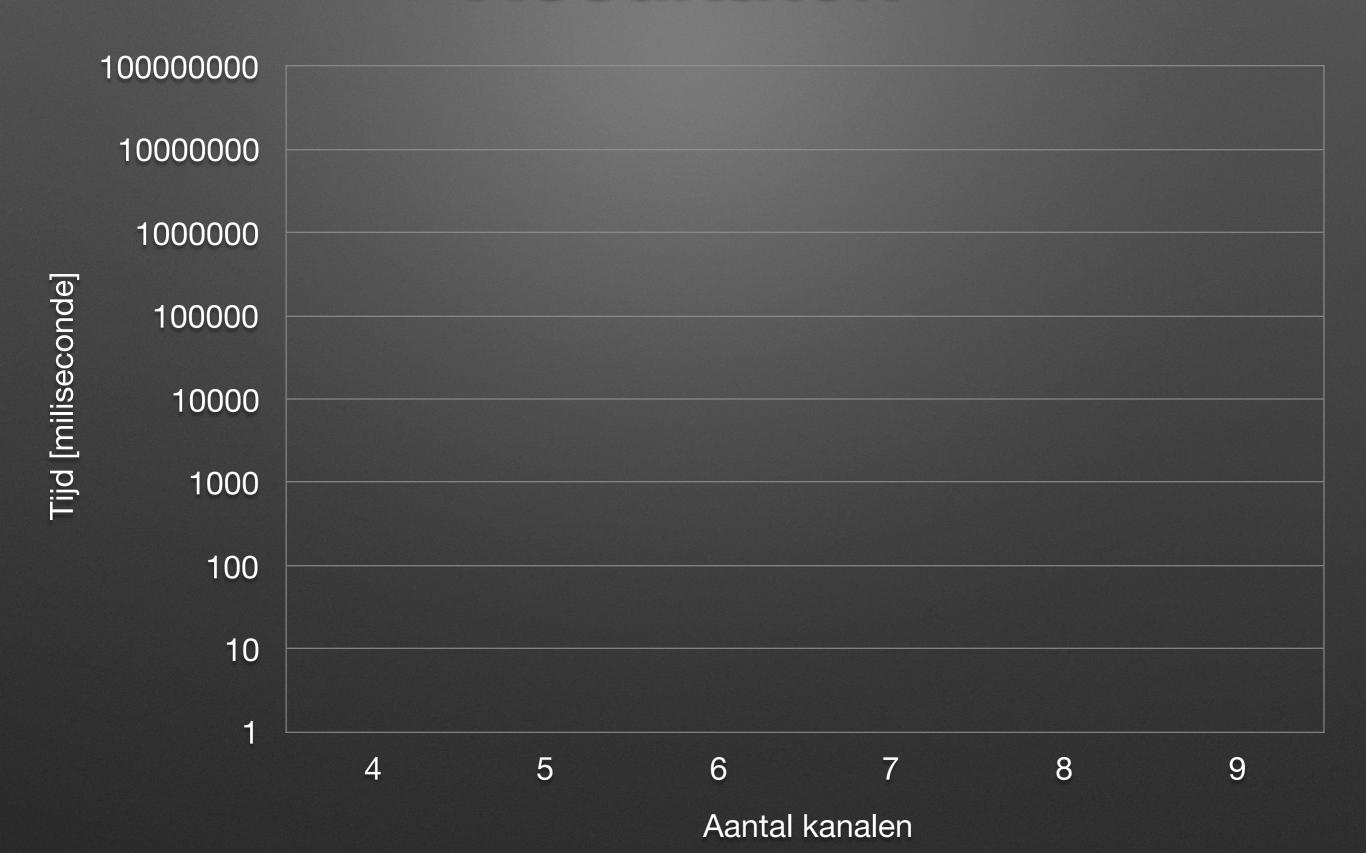
Gevonden sorteernetwerk: (1-2)

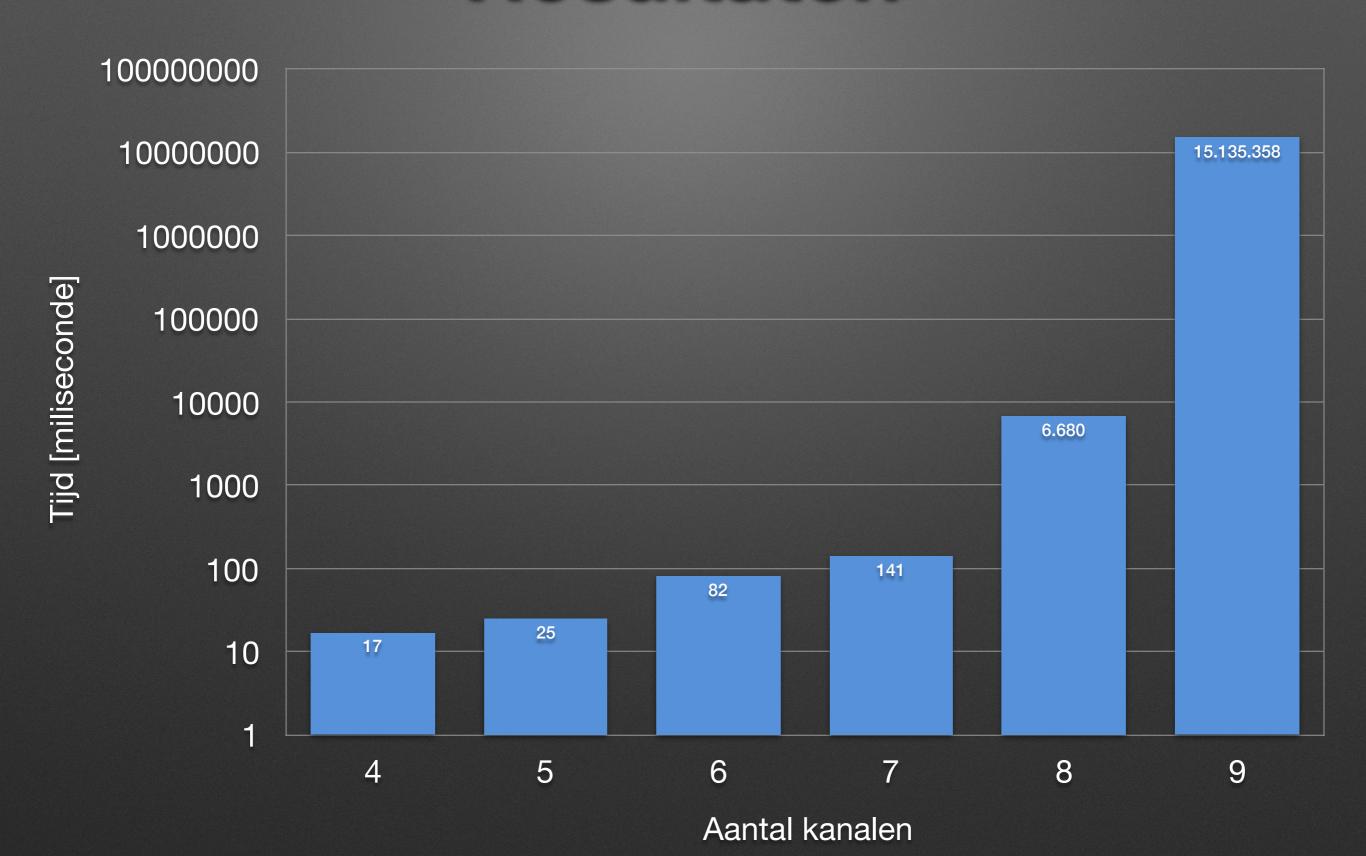


Gevonden sorteernetwerk: (1-2) (2-3)



Gevonden sorteernetwerk: (1-2) (2-3) (1-2)



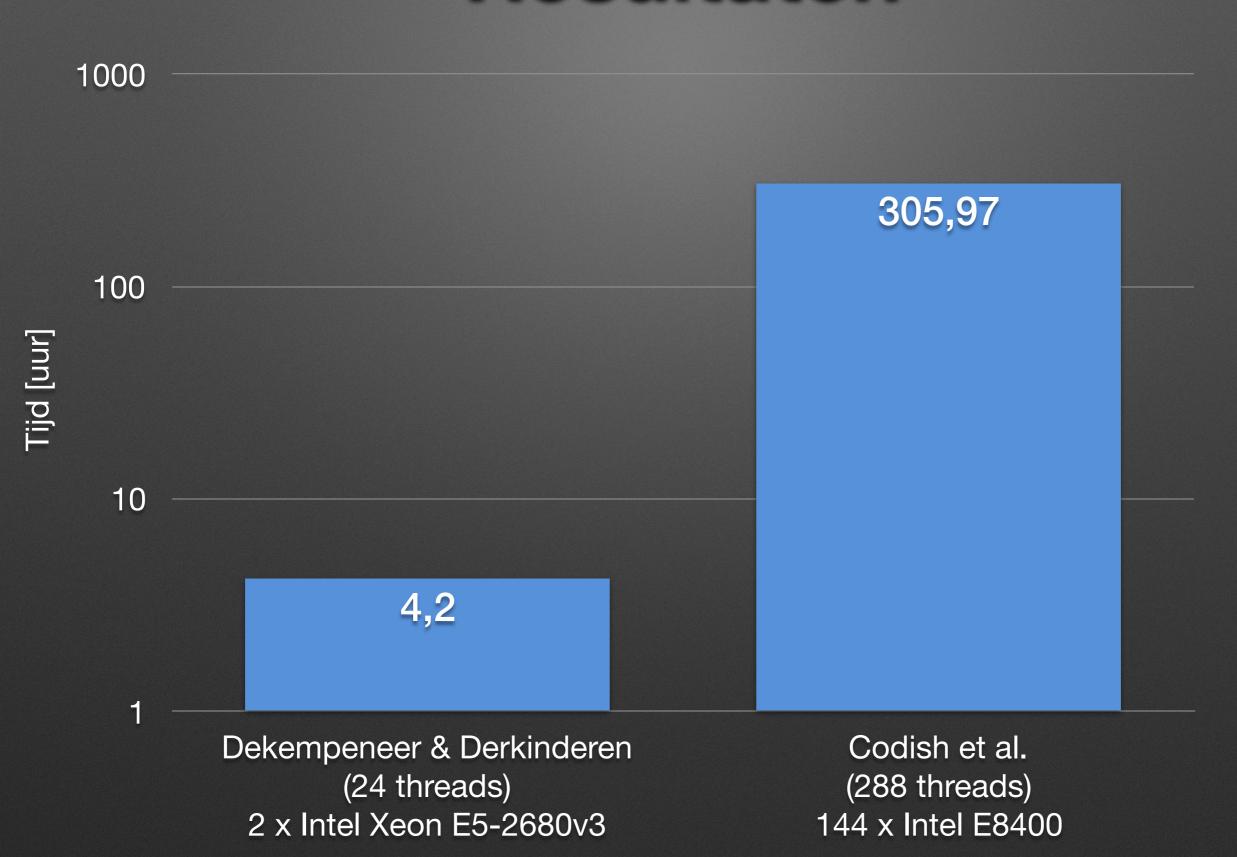


1000

100

10

Dekempeneer & Derkinderen (24 threads) 2 x Intel Xeon E5-2680v3 Codish et al. (288 threads) 144 x Intel E8400



Conclusie

Conclusie

WAT?

Resultaten van de paper gereproduceerd

Conclusie

WAT?

Resultaten van de paper gereproduceerd

WAT VOLGT?

Bekijken reden van verbetering

Implementatie voor meerdere nodes

Verbeteringen voor het algoritme zoeken