

Impossibility of adiabatic quantum walk search

- Both approaches individually perform well, what happens if we combine them?
- Wong *et. al* (2016) showed that it is **impossible** to construct an **adiabatic-quantum walk** search algorithm (for the complete graph)
- It would need a stronger structure than the Grover's oracle

It leaves space for a time-dependent approach **inspired** by the adiabatic evolution, but **free** from the **constraints** of the adiabatic theorem

T. Wong and D. Meyer, Irreconcilable difference between quantum walks and adiabatic quantum computing. *Physical Review A* (2016)