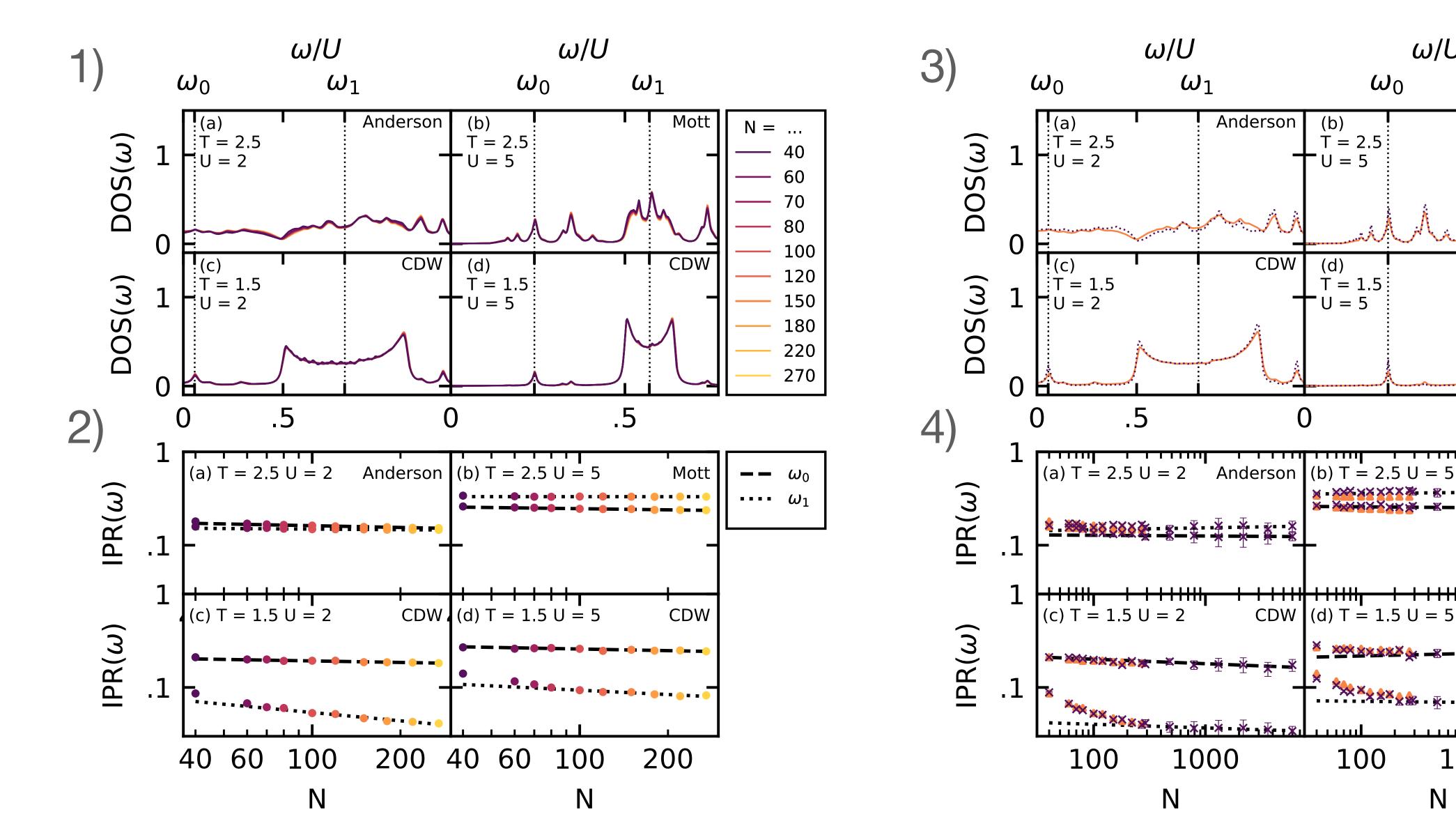
Results: Localisation



 ω/U

 ω_1

.5

1000

N

Mott

CDW

CDW

N = 270

FK

DM

 ω_0

 ω_1

FΚ

DM

×

Summary

- Aimed to bring interesting 2D correlated electron physics down to 1D
- Defined a 1D long ranged Falikov-Kimball Model
- Rich phase diagram and Disorder Free Localisation
- Disorder model: Went to larger N to pin down the localisation physics.

Future work

- Finite temperature SSH Model
- Non-equilibrium dynamics
- Cold Atom realisation

Thank you, any questions?

