

The 1D Long-Range Falikov-Kimball Model

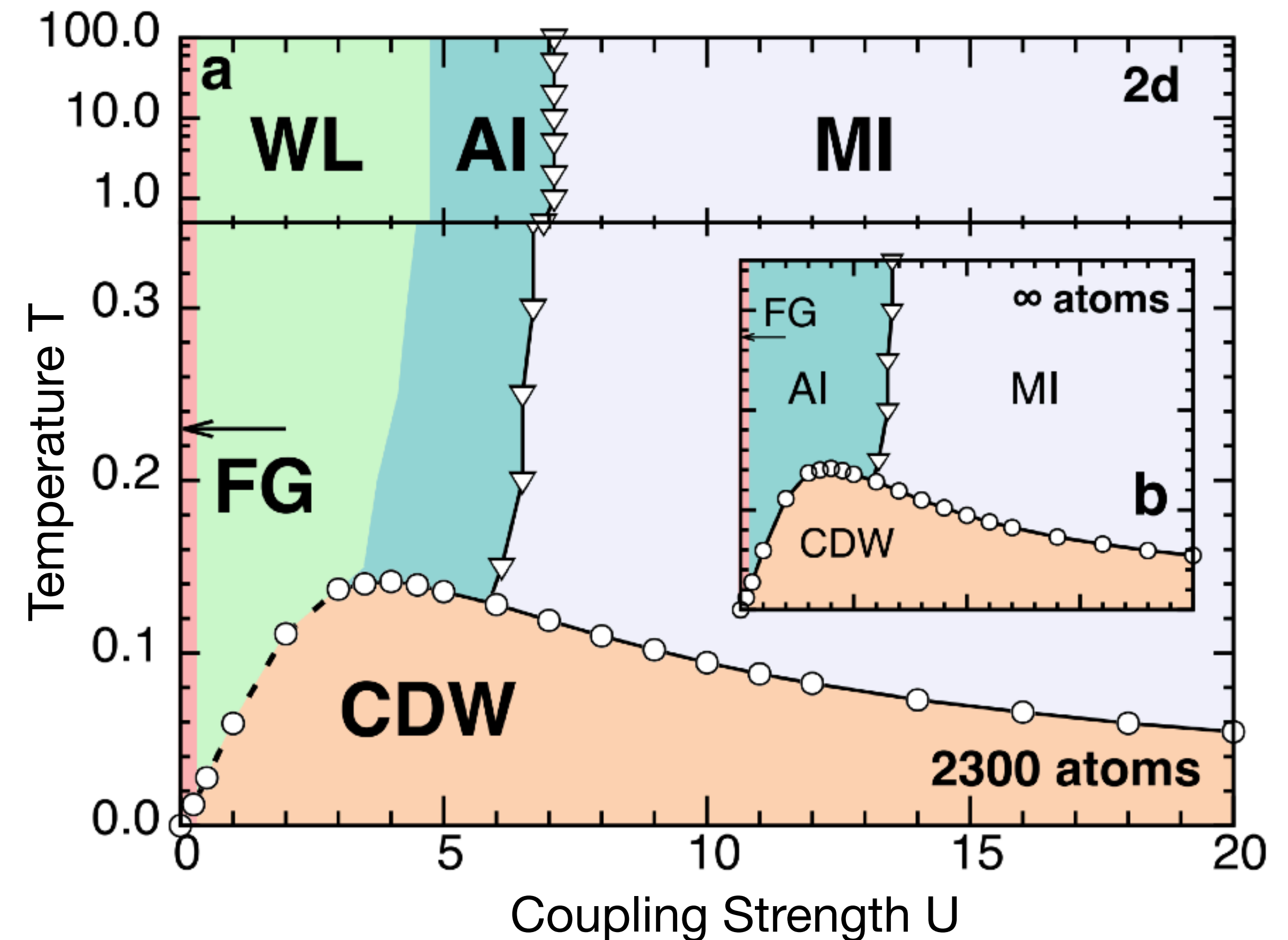
Thermal Phase Transitions and Disorder-Free Localisation

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APS March Meeting 15th March 2021
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The Falikov-Kimball Model

- Spinless fermions coupled to a classical spin chain.
- Correlated electron problem testbed.
- Admits an exact MCMC algorithm. [1]



Can we find the same physics in 1D?

[1] Vries, Michielsen, and De Raedt, PRL **70**, 2463 (1993)