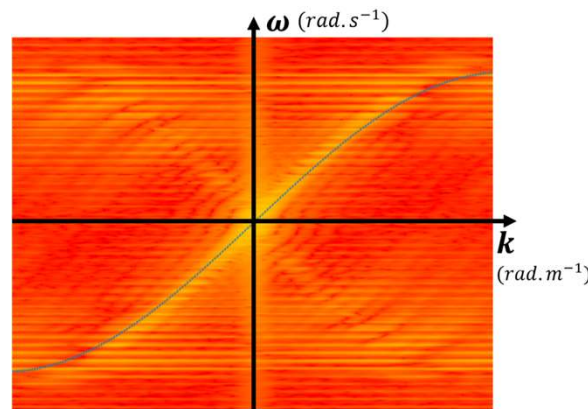


**Non-linear wave equation**



**Non-linear wave phenomena and illustration of the Ising model in a chain of magnetic oscillators.**

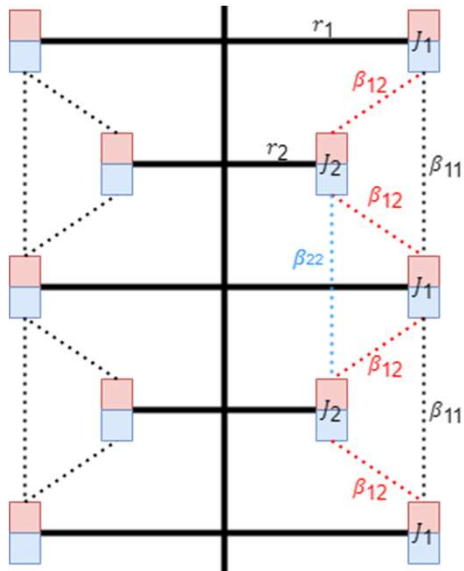
Guillaume Noetinger

Jad Sobhie

Benjamin Apffel

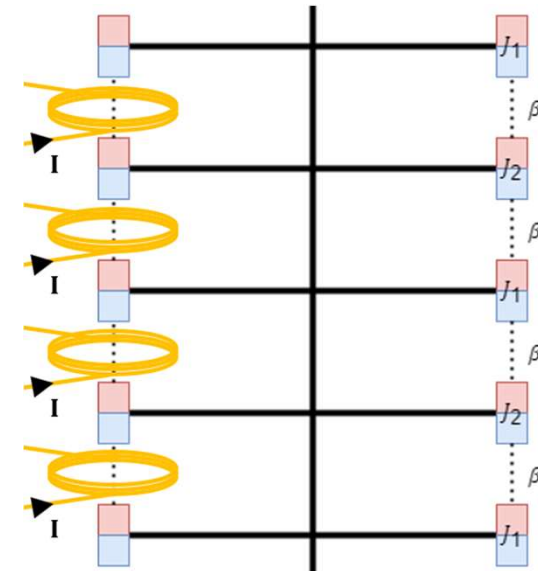
Romain Fleury

Unusual dispersion relation ?



Configuration with 2<sup>nd</sup> neighbour coupling

How to create a parallel with the Ising model ?



Ising Model:  $H = - \sum_{ij} J_{ij} S_i S_j$

Coupled Oscillator Network

