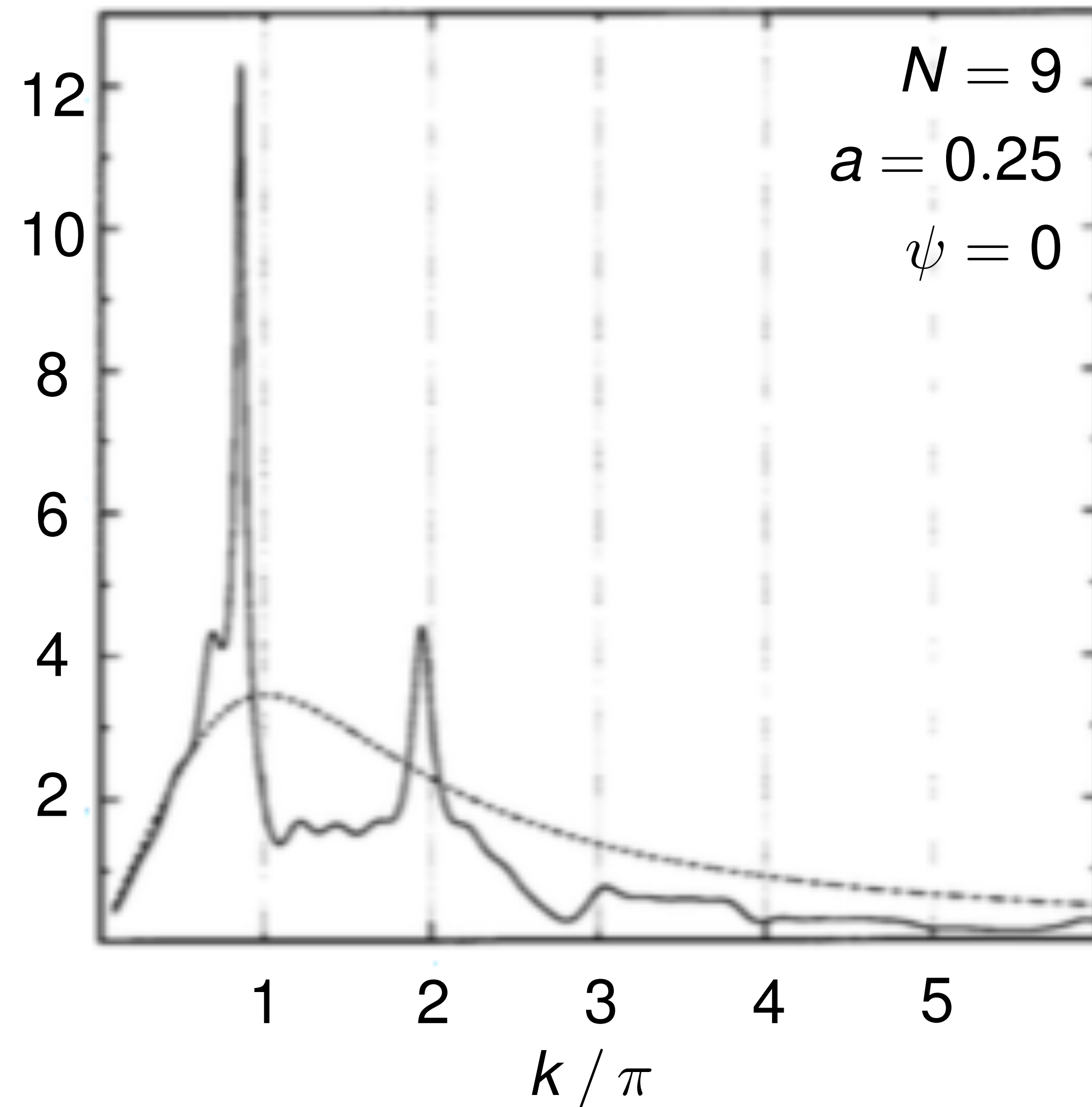
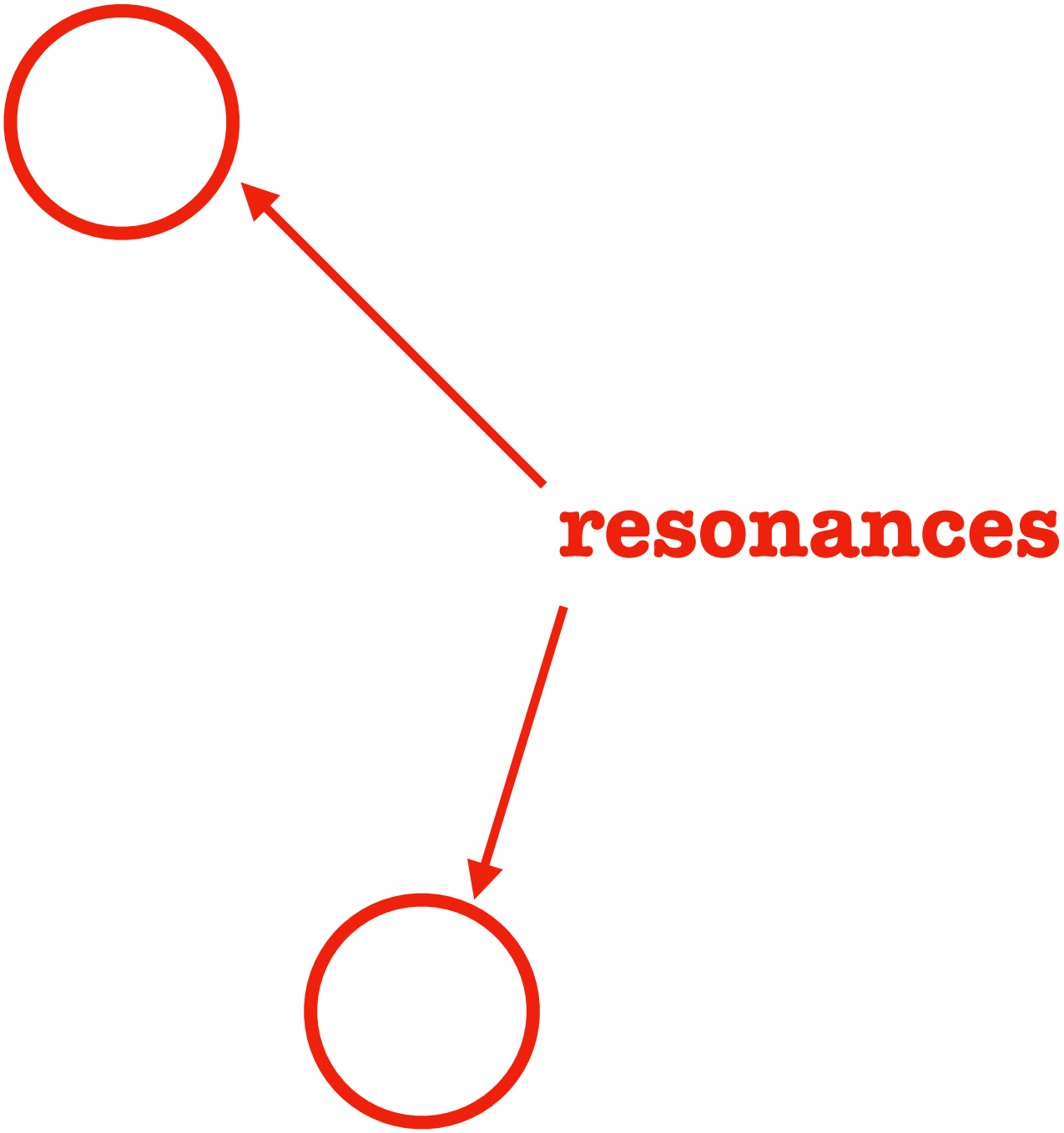




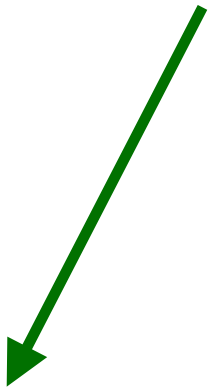
# Resonant loads: Maniar & Newman (1997, J Fluid Mech)

Load on middle cylinder  $C_5$



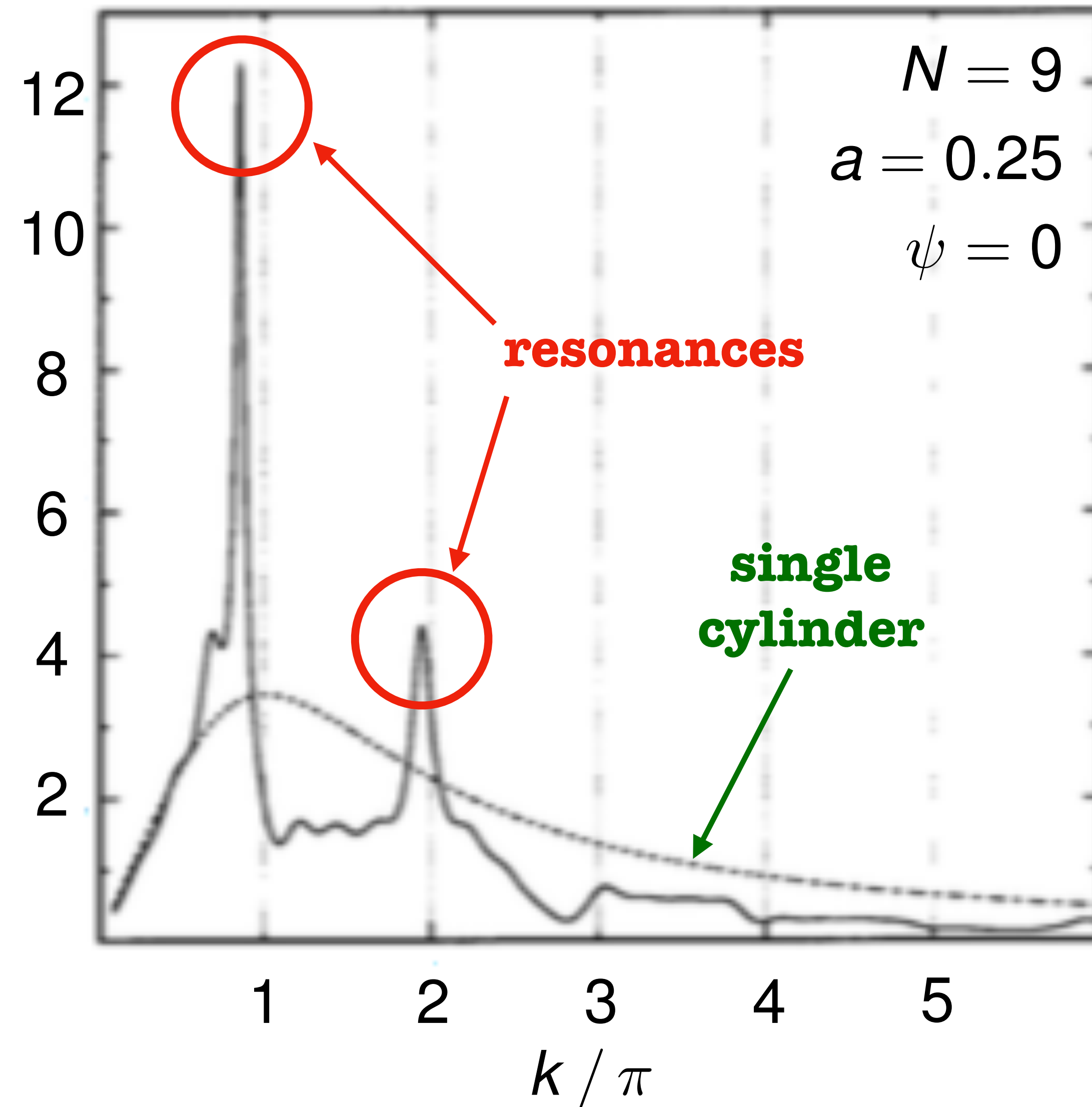


**single  
cylinder**



# Resonant loads: Maniar & Newman (1997, J Fluid Mech)

Load on middle cylinder  $C_5$



# Connection with infinite arrays: Rayleigh–Bloch waves

## Rayleigh–Bloch waves

- Rayleigh–Bloch waves **propagate along infinite arrays**.
  - Decay exponentially away from array, i.e. “array bound”.
- Wavenumber  $\beta \in \mathbb{R}$ :  $k < \beta < \pi$ .
- RB waves “cut-off” for  $k = k_c < \pi$ .
- Incident waves cannot excite RB waves on infinite arrays.