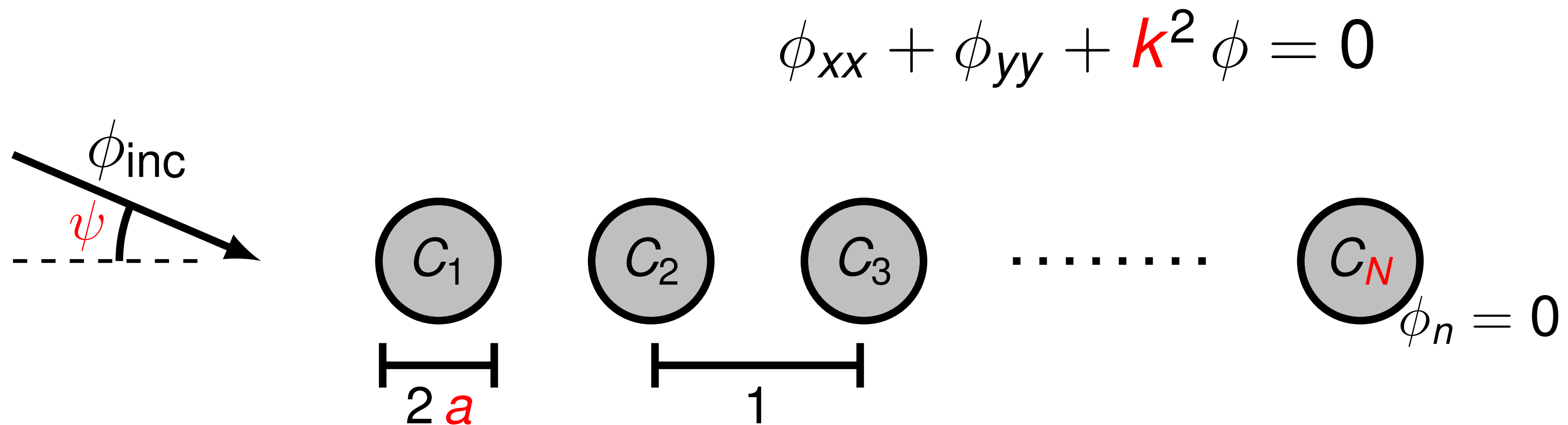


# Problem considered

- Straight-line array of  $N$  vertical cylinders.
- Plane incident wave  $\phi_{\text{inc}} = \varphi(x, y : \psi)$ :  $\varphi = \exp\{i k (x \cos \psi + y \sin \psi)\}$ .
- Time-harmonic conditions at angular frequency  $\omega$ .
- Reduce to 2D problem shown below:  $k \tanh(k H) = \omega^2 / g$ .
- Nondimensionalised  $\longrightarrow$  parameters:  $k, \psi, N, a$ .



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

Load on middle cylinder  $C_5$

