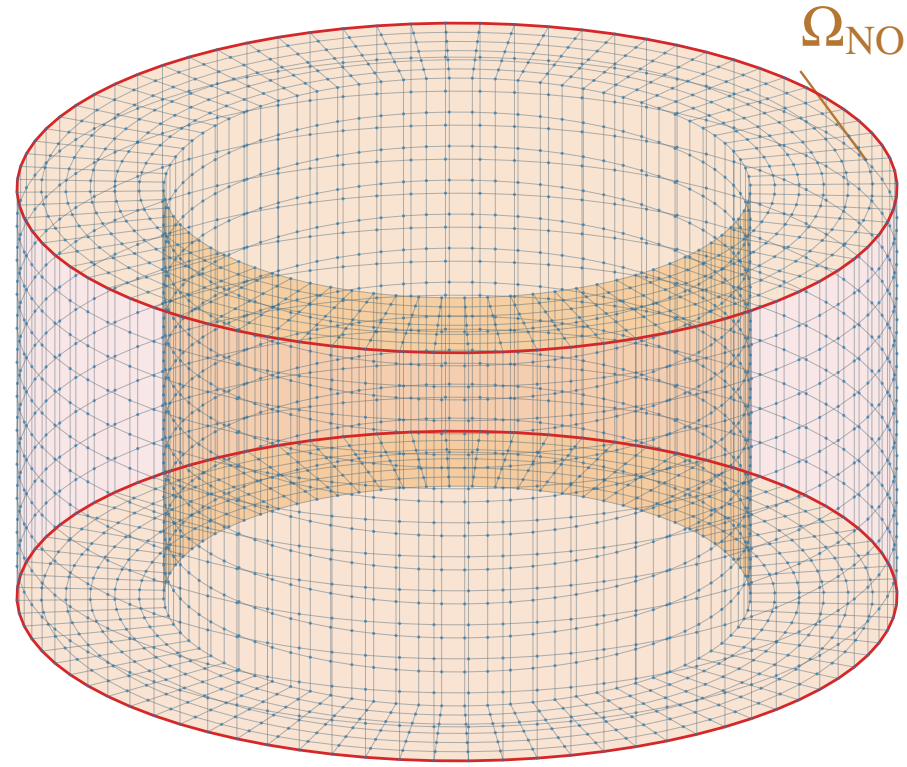
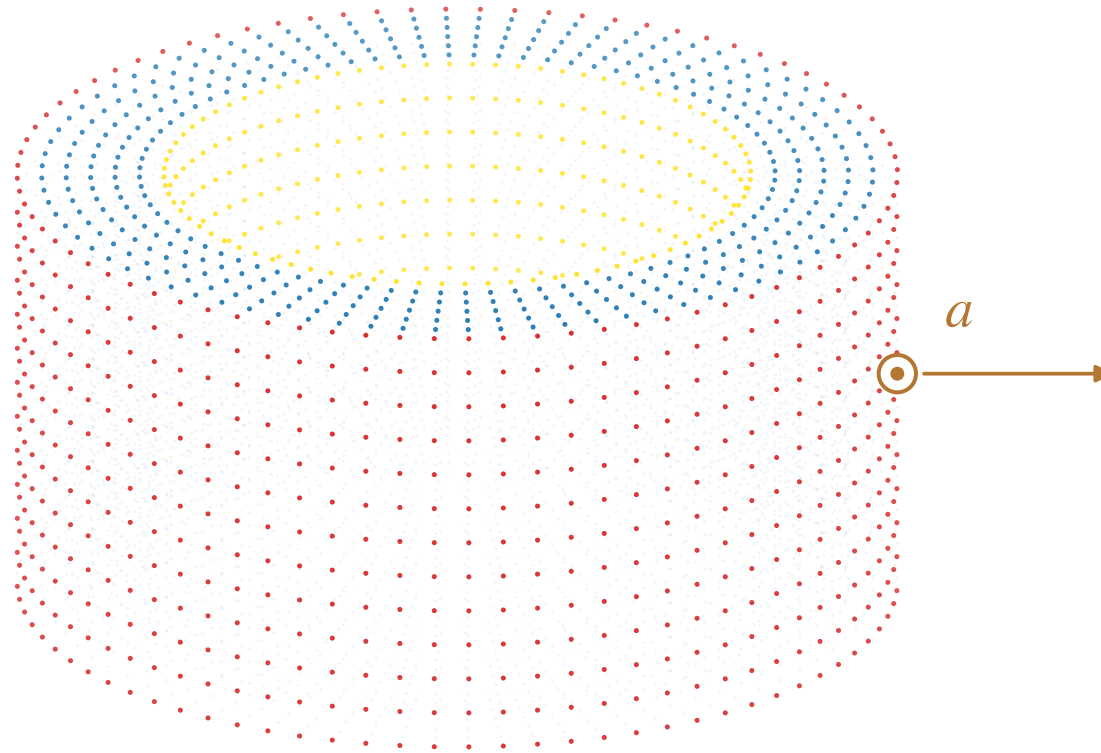


(a) HEX8 mesh



$$N_e = 5760$$

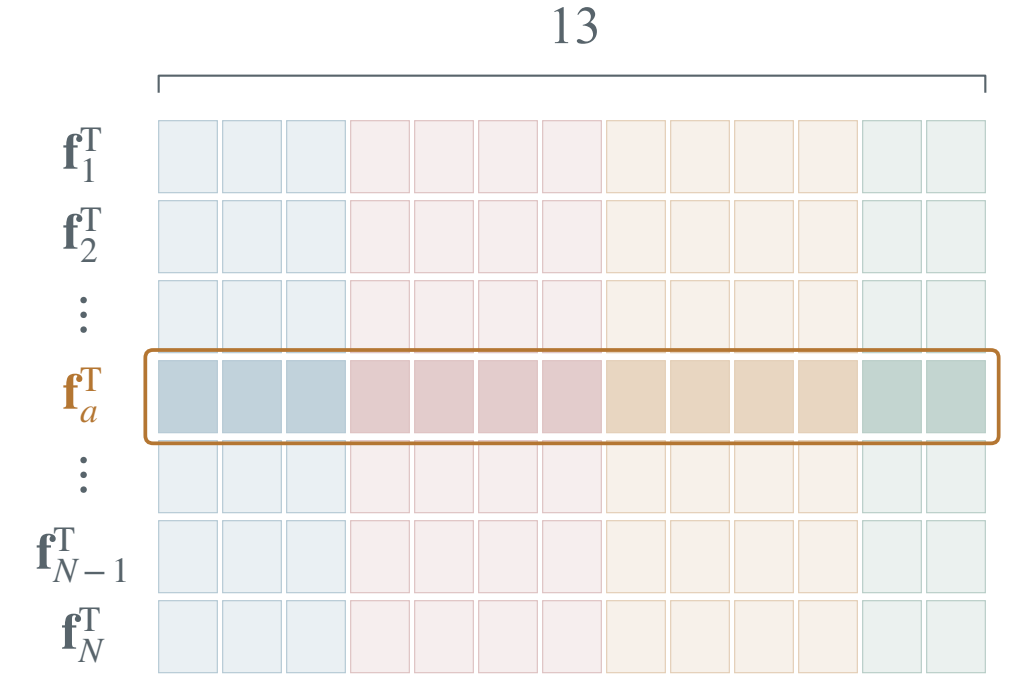
(b) Nodal point cloud



$$N = 7280$$

• Other nodes • Interface Γ • Hole wall

(c) Input matrix



$$\mathbf{X} \in \mathbb{R}^{N \times 13}$$

(d) Nodal features

$$\mathbf{f}_a^T = \left[\underbrace{x, y, z}_{3} \mid \underbrace{\chi^D, u_x^D, u_y^D, u_z^D}_{4} \mid \underbrace{\chi^N, t_x^N, t_y^N, t_z^N}_{4} \mid \underbrace{E, \nu}_{2} \right]$$