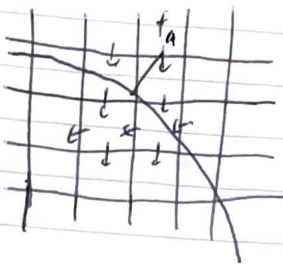


① Pure immersed boundary:

$$f = \sigma K \delta H$$



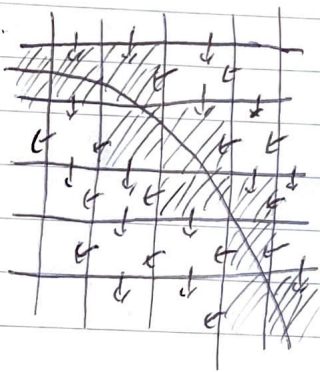
$$f_a = \sigma K \delta H$$

local euclidian delta function (curl-free)

shortest distance to the interface

② Immersed element boundary:

$$f = -\nabla p \quad (\text{helmholtz decomposition, irrotational field})$$



$p$  in shaded region is obtained from the interface, force is only defined in unshaded region.