2D case Using our above result for $\partial_k J_{ij}$, and writing $\boldsymbol{x}^+ = \ell \boldsymbol{n}$ and $\boldsymbol{F}^+ = F\boldsymbol{n}$ with $|\boldsymbol{n}| = 1$, we find in 2D

$$\begin{aligned} u_i(\boldsymbol{x}) &= -\frac{x_k^+}{2\pi\mu}\left[-\delta_{ij}\frac{x_k}{|\boldsymbol{x}|^2} + \left(\delta_{ik}\frac{x_j}{|\boldsymbol{x}|^2} + \delta_{jk}\frac{x_i}{|\boldsymbol{x}|^2} - 2\frac{x_i x_j x_k}{|\boldsymbol{x}|^4}\right)\right] F_j^+ \\ &= -\frac{F\ell}{2\pi\mu}\left(-n_i\frac{x_k n_k}{|\boldsymbol{x}|^2} + n_i\frac{x_j n_j}{|\boldsymbol{x}|^2} + n_k n_k\frac{x_i}{|\boldsymbol{x}|^2} - 2\frac{n_k x_i x_j x_k n_j}{|\boldsymbol{x}|^4}\right) \end{aligned}$$

and, hence,

$$\boldsymbol{u}(x) = \frac{F\ell}{2\pi\mu|\boldsymbol{x}|}\left[2(\boldsymbol{n}\cdot\hat{\boldsymbol{x}})^2 - 1\right]\hat{\boldsymbol{x}} \tag{5.60}$$

where $\hat{\boldsymbol{x}} = \boldsymbol{x}/|\boldsymbol{x}|$.