

$$p_{-\varepsilon}(r) = \frac{2b-a}{r_{-\varepsilon}^3}Fr - \frac{3}{2r_{-\varepsilon}^5}\left(2b\left(r^T Fr\right)I_n + a\varepsilon^2 F\right)r$$

where

$$F \in \mathbb{R}^{n \times n}$$

$$r \in \mathbb{R}^n$$

$$r_{-\varepsilon} \in \mathbb{R}$$

$$a \in \mathbb{R}$$

$$b \in \mathbb{R}$$

$$\varepsilon \in \mathbb{R}$$