

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

where

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

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

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

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

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

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