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

where

- $F \in \mathbb{R}^{n \times n}$
- $r \in \mathbb{R}^n$
- $r_{\epsilon} \in \mathbb{R}$
- $a \in \mathbb{R}$
- $b \in \mathbb{R}$
- $\varepsilon \in \mathbb{R}$