

- [17] In addition even and odd solutions with $n > 0$ have different singular behavior at $|\xi| \ll 1$: $\delta\rho^{(\text{even})} \sim \sqrt{|\xi|}$, $\delta\rho^{(\text{odd})} \sim \text{sign}(\xi)/\sqrt{|\xi|}$. At $\xi \rightarrow \pm 1$ all solutions diverge as $\delta\rho \sim 1/\sqrt{1-\xi^2}$.
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