

Disables the nonlinear fringe of solenoid if nonzero. The default is 0. The transformation for the nonlinear fringe is e

$$\exp(\text{: } H \text{ :)} , \qquad H = -B_z/(8p^2B\rho)p_\phi p_r,$$

where

$$\begin{aligned} p_\phi &= xp_y - yp_x, \\ p_r &= xp_x + yp_y, \end{aligned}$$

whose canonical partners are

$$\begin{aligned} \phi &= \text{ArcTan}[y/x], \\ r &= \text{Log}[x^2 + y^2]/2, \end{aligned}$$

respectively.