\[ \chi_r^2 = 1.04 \]

The surface brightness is given by

\[ f(r) = n \left(1 + \left(\frac{r}{r_0}\right)^2\right)^{0.5-3\beta} \]

with the following parameters:

- \( n = 1.03 \)
- \( r_0 = 16.1 \)
- \( \beta = 0.643 \)