

各 NLAST 的 误差 $E(\Delta U)$	Mismatch 版	Sinc 版	Σ Cos 版	$M \oplus \Sigma$ Cos 版
完全 失配		10^{-2}		
部分 匹配				
完全 匹配		10^{-2}		

$M \oplus \Sigma$ Cos – NLAST
: 来源

$$M \oplus \Sigma \text{ Cos} - \text{NLAST:} \quad \text{np.where}\left(\left|\frac{\Delta k_z z}{2}\right| \leq (J+1)\pi, \mathcal{F}[E_{3z}]\right)_{\Sigma \text{ Cos}}, 0) + \text{np.where}\left(\left|\frac{\Delta k_z z}{2}\right| > (J+1)\pi, \mathcal{F}[E_{3z}]\right)_{\text{Mismatch}}, 0)$$

$$\left\{ \begin{array}{l} \Sigma \text{ Cos} - \text{NLAST:} \quad \mathcal{F}[E_{3z}]_{\Sigma \text{ Cos}} \approx \frac{\chi_{\text{eff}} \omega_3^2}{2c^2} \cdot \sum_j a_j \int \mathcal{F} \left[\mathcal{F}_z[M_{\text{eff}}(r)] \cdot E_{1\frac{b_j \pm 1}{2b_j}z} E_{2\frac{b_j \pm 1}{2b_j}z} \right] \cdot \frac{e^{ig_z \frac{b_j \pm 1}{2b_j}z}}{k_{1z} + k_{2z} + g_z + k_{3z}} \cdot dg_z \cdot e^{ik_{3z} \frac{b_j \pm 1}{2b_j}z} \cdot iz \\ \text{失配解} - \text{NLAST:} \quad \mathcal{F}[E_{3z}]_{\text{Mismatch}} \approx \frac{\chi_{\text{eff}} \omega_3^2}{c^2} \cdot \int \frac{\mathcal{F} \left[\mathcal{F}_z[M_{\text{eff}}(r)] \cdot E_{1z} E_{2z} \right] \cdot e^{ig_z z} - \mathcal{F} \left[\mathcal{F}_z[M_{\text{eff}}(r)] \cdot E_{10} E_{20} \right] \cdot e^{ik_{3z} z}}{\left(\overline{k_{1z}} + \overline{k_{2z}} + g_z \right)^2 - k_{3z}^2} \cdot dg_z \end{array} \right.$$