各 NLAST 的误差 E(Δ|U|)	Mismatch 版	Sinc 版	Σ Cos 版	M ⊕ Σ Cos 版
完全 失配	10^{-7}	10^{-2}	10^{-1}	10^{-7}
部分 匹配	10^{-1}	10^{-1}	10^{-4}	10^{-4}
完全 匹配	1	10^{-2}	10^{-6}	10^{-6}

M ⊕ Σ Cos – NLAST：来源

M ⊕ Σ Cos – NLAST：

$$\text{np.where}\left(\left|\frac{\Delta k_z z}{2}\right| \le (J+1)\pi, \mathcal{F}[E_{3z}]\Big|_{\Sigma\text{Cos}}, 0\right) + \text{np.where}\left(\left|\frac{\Delta k_z z}{2}\right| > (J+1)\pi, \mathcal{F}[E_{3z}]\Big|_{\text{Mismatch}}, 0\right)$$

Σ Cos – NLAST：

$$\mathcal{F}[E_{3z}]\Big|_{\Sigma\text{Cos}} \approx \frac{\chi_{\text{eff}}\omega_3^2}{2c^2}\cdot\sum_j a_j \int \mathcal{F}\left[\mathcal{F}_z\left[M_{\text{eff}}(\boldsymbol{r})\right]\cdot E_{1\frac{b_j\pm1}{2b_j}z} E_{2\frac{b_j\pm1}{2b_j}z}\right]\cdot\frac{e^{ig_z\frac{b_j\pm1}{2b_j}z}}{\overline{k_{1z}}+\overline{k_{2z}}+g_z+k_{3z}}\cdot \mathrm{d}g_z \cdot e^{ik_{3z}\frac{b_j\mp1}{2b_j}z}\cdot iz$$

失配解 – NLAST：

$$\mathcal{F}[E_{3z}]\Big|_{\text{Mismatch}} \approx \frac{\chi_{\text{eff}}\omega_3^2}{c^2}\cdot\int\frac{\mathcal{F}\left[\mathcal{F}_z\left[M_{\text{eff}}(\boldsymbol{r})\right]\cdot E_{1z}E_{2z}\right]\cdot e^{ig_z z}-\mathcal{F}\left[\mathcal{F}_z\left[M_{\text{eff}}(\boldsymbol{r})\right]\cdot E_{10}E_{20}\right]\cdot e^{ik_{3z}z}}{\left(\overline{k_{1z}}+\overline{k_{2z}}+g_z\right)^2-k_{3z}^2}\cdot \mathrm{d}g_z$$