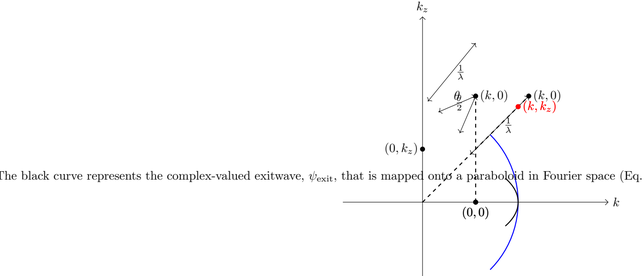

(Geometrical equivalence of the Ewald sphere curvature (blue) and the first Born approximation of the multislice formalism (black). The black curve represents the complex-valued exitwave, ψ_{exit}, that is mapped onto a paraboloid in Fourier space (Eq. eq:equiv). At a small angle, $\theta \approx \lambda k$, the surface of the paraboloid approaches that of the Ewald sphere since $k_z = \tan\frac{\theta}{2} \approx \frac{k\theta}{2} = \frac{\lambda k^2}{2}$. For example, for a 200 electron beam ($\lambda \approx 0.025$) and $k = 1^{-1}$, the angle is $\theta \approx 0.025$.)