Laboratory coordinate system

$\dfrac{\lambda_u}{8\pi\rho\gamma^2}\left(1+K^2/2\right)$

$\dfrac{\lambda_u}{2\gamma^2}\left(1+K^2/2\right)$

λ_u

Bunch rest frame: $\gamma_0 = \gamma/\sqrt{1+K^2/2}$

$\dfrac{\lambda_u}{\gamma}\sqrt{1+K^2/2}$

$\dfrac{\lambda_u}{\gamma}\sqrt{1+K^2/2}$

$\dfrac{\lambda_u}{8\pi\rho\gamma}\sqrt{1+K^2/2}$