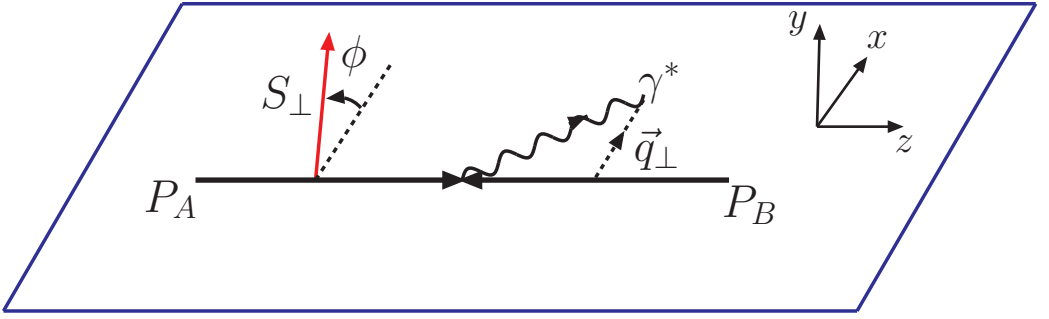
y
x
z
$S_\perp$
ϕ
γ^*
$\vec{q}_\perp$
P_A
P_B