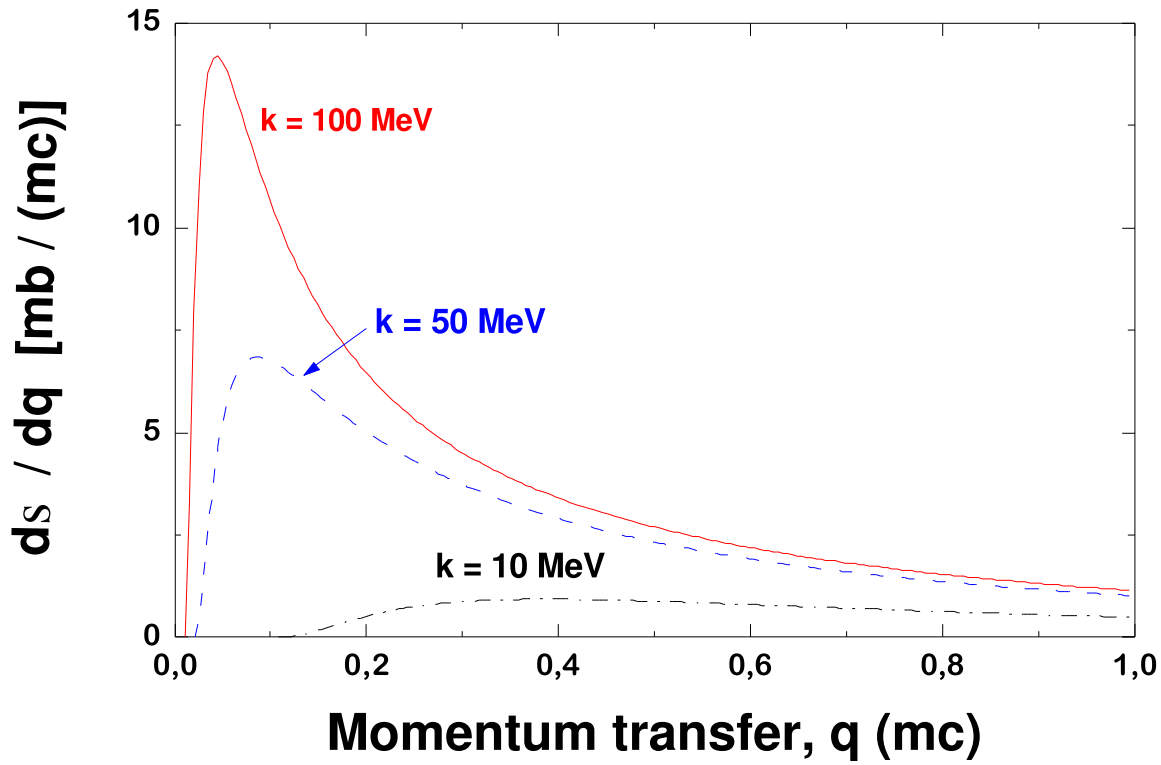PP in the field of a free e⁻: Recoil momentum distributions