

$$[f,g]=f\ast g-g\ast f,\quad (f\ast g)(x):=\frac{1}{\pi^4|\theta|}\int_{\mathbb{R}^8}\mathrm{d}u\,\mathrm{d}v\,f(x-u)g(x-v)e^{2iu\tilde{\theta}v}$$