

$$\langle\langle x|X,P\rangle\rangle\propto\left.\frac{K\frac{d-1}{2}\left(m\sqrt{-\Xi^2}\right)}{\left(m\sqrt{-\Xi^2}\right)^{\frac{d-1}{2}}}\right|_{\Xi=\sigma P+i\left(x-X\right)}$$