$$x = {}^{i\tau}\mathfrak{e}$$

$$ {}^{x}X^{\mu} = \sum_{n}^{\mathbb{N}} \underbrace{\bigotimes_{m}^{<n} \imath_m}_{} \bowtie \underbrace{{}^{x}X_n^{\mu}}_{} \bowtie \underbrace{\bigotimes_{m}^{>n} \imath_m}_{} $$

$$ {}^{x}X_n^{\mu} = \begin{cases} X^{\mu} - {}^{x}\not{\mathfrak{e}}\, iP^{\mu} & n = 0 \\ \dfrac{x^n \overset{*}{\partial}{}^{\mu} - x^{-n}\partial^{\mu}}{i\sqrt{n}} & n > 0 \end{cases} $$

$$ {}^{\tau}X_{\sigma}^{\mu} = X^{\mu} + \tau P^{\mu} - \sum_{n \neq 0} {}^{\sigma n}\mathfrak{c}\; {}^{-i\tau}\mathfrak{e}^{n} \frac{\alpha_n^{\mu}}{in} $$

$$\mu \in d$$

$$\sigma \in 0|\pi$$

$$\sigma = 0: \quad {}^{\tau}X_0^{\mu} = X^{\mu} + \tau P^{\mu} - \sum_{n \neq 0} \frac{{}^{-i\tau}\mathfrak{e}^{n}}{in} \alpha_n^{\mu}$$

$$ {}^{x}X^{\mu} = X^{\mu} - {}^{x}\not{\mathfrak{e}}\, P^{\mu} i - \sum_{n \neq 0} \frac{x^{-n}}{in} \alpha_n^{\mu}$$

$$ = X^{\mu} - {}^{x}\not{\mathfrak{e}}\, P^{\mu} i - \sum_{n>0} \frac{x^{-n}}{in} \alpha_n^{\mu} + \sum_{n>0} \frac{x^{n}}{in} \alpha_{-n}^{\mu} = X^{\mu} - {}^{x}\not{\mathfrak{e}}\, P^{\mu} i + \sum_{n>0} \frac{x^n \overset{*}{\alpha}{}_n^{\mu} - x^{-n}\alpha_n^{\mu}}{in}$$