$$\mathbb{R}\times 0|\pi \xrightarrow{X} \mathbb{R}^{1:d}$$

$$\mathbb{R}\times 0|\pi \underset{\infty}{\blacktriangle} \mathbb{R}^{\mathbb{N}} \ni {}^{\tau:\sigma}X^{\mu} = X^{\mu} + \tau P^{\mu} - i\sum_{n>0} \underbrace{\frac{X^{\mu}_{n}}{n}{}^{-\tau i}\mathfrak{e}^{n} - \frac{X^{\mu}_{-n}}{n}{}^{\tau i}\mathfrak{e}^{n}}\,{}^{\sigma n}\mathfrak{c}$$

$$= X^{\mu} + \tau P^{\mu} - \sum_{n>0} \overbrace{\frac{X^{\mu}_{n}}{n}{}^{-\tau i}\mathfrak{e}^{n}}^{\mathbb{I}}\,{}^{\sigma n}\mathfrak{c} = X^{\mu} + \tau P^{\mu} - i\sum_{0\neq n} \frac{X^{\mu}_{n}}{n}{}^{-\tau i}\mathfrak{e}^{n}\,{}^{\sigma n}\mathfrak{c}$$

$${}^{\tau:0}\overbrace{\partial_{\sigma}X} = 0 = {}^{\tau:\pi}\overbrace{\partial_{\sigma}X} \underset{\text{Rand}}{\Longrightarrow} {}^{\tau:\sigma}X^{\mu} = {}^{\tau}A^{\mu}_{0} - i\sum_{n>0}{}^{\tau}A^{\mu}_{n}\frac{{}^{\sigma n}\mathfrak{c}}{n}$$

$${}^{\tau:\sigma}\overbrace{\partial_{\sigma}X} = i\sum_{n>0}{}^{\tau}A_{n}\,{}^{\sigma n}\mathfrak{s} \Longrightarrow {}^{\tau:\sigma}X^{\mu} = {}^{\tau}A^{\mu}_{0} - i\sum_{n>0}{}^{\tau}A^{\mu}_{n}\frac{{}^{\sigma n}\mathfrak{c}}{n}$$

$$0 = \partial^{2}_{\tau}X - \partial^{2}_{\sigma}X \underset{\text{motion}}{\Longrightarrow} \begin{cases} {}^{\tau}A^{\mu}_{0} & = X^{\mu} + \tau P^{\mu} \\ {}^{\tau}A^{\mu}_{n} & = X^{\mu}_{n}{}^{-\tau i}\mathfrak{e}^{n} - X^{\mu}_{-n}{}^{\tau i}\mathfrak{e}^{n} \end{cases}$$

$$\partial^{2}_{\sigma}X = i\sum_{n>0}{}^{\tau}A^{\mu}_{n}n\,{}^{\sigma n}\mathfrak{c}$$

$$\partial^{2}_{\tau}X = {}^{\tau}\ddot{A}^{\mu}_{0} - i\sum_{n>0}{}^{\tau}\ddot{A}^{\mu}_{n}\frac{{}^{\sigma n}\mathfrak{c}}{n}$$

$$0 = \partial^{2}_{\tau}X - \partial^{2}_{\sigma}X = {}^{\tau}\ddot{A}^{\mu}_{0} - i\sum_{n>0}\underbrace{{}^{\tau}\ddot{A}^{\mu}_{n} + n^{2}\,{}^{\tau}A^{\mu}_{n}}\frac{{}^{\sigma n}\mathfrak{c}}{n}$$

$$\Longrightarrow \begin{cases} {}^{\tau}\ddot{A}^{\mu}_{0} = 0 \Longrightarrow {}^{\tau}A^{\mu}_{0} = X^{\mu} + \tau P^{\mu} \\ {}^{\tau}\ddot{A}^{\mu}_{n} + n^{2\,\tau}A^{\mu}_{n}n = 0 \Longrightarrow {}^{\tau}A^{\mu}_{n} = X^{\mu}_{n}{}^{-\tau i}\mathfrak{e}^{n} - X^{\mu}_{-n}{}^{\tau i}\mathfrak{e}^{n} \end{cases}$$

$$\underset{\text{real}}{\Longrightarrow} \bar{X}^{\mu}_{n} = X^{\mu}_{-n}$$

$${}^{\tau}A^{\mu}_{n} = X^{\mu}_{n}{}^{-\tau i}\mathfrak{e}^{n} - X^{\mu}_{-n}{}^{\tau i}\mathfrak{e}^{n} \in i\mathfrak{t} \Longrightarrow \bar{X}^{\mu}_{n} = X^{\mu}_{-n}$$