

# Lagrangian Vertex Operator for Electrostatic Background Field in $\Omega$

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## Abstract

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It's expected that electrostatic background signatures surmounts at the supersymmetric [SUSY] energy scale. These electrostatic background signatures is intrinsic to metamorphic space. In order to derive a Lagrangian vertex operator one must treat SUSY as a metamorphic phenomenon.

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## SUSY and Metaspace

First one demonstrates the action integral for SUSY at  $\mathcal{N} = 4$  :[1]

$$I_{\text{SUSY}} = -\frac{1}{2} \int_M d^5 e^{i(\omega t - k \vec{x})} \sqrt{-g} [R - \frac{1}{\beta}] + \int_{\partial M} d^4 e^{i(\omega t - k \vec{x})} \hat{K} \sqrt{-h} - \int d^4 e^{i(\omega t - k \vec{x})} \sqrt{-h} \frac{1}{\beta}$$

One shows that the supersymmetric solution as equivalent to the Polyakov action integral linear sigma model for curve background fields. Such that:

$$I_{\text{SUSY}} = I_{\text{Polyakov}}$$

Then one relates the difference:

$$I_{\text{SUSY}} - I_{\text{Polyakov}} = \emptyset \implies \text{INTERFACE}$$

$$\begin{aligned} & [ -\frac{1}{2} \int_M d^5 e^{i(\omega t - k \vec{x})} \sqrt{-g} [R - \frac{1}{\beta}] + \int_{\partial M} d^4 e^{i(\omega t - k \vec{x})} \hat{K} \sqrt{-h} - \int d^4 e^{i(\omega t - k \vec{x})} \sqrt{-h} \frac{1}{\beta} ] - [ \frac{1}{4\pi \beta^2} \int \partial^2 \xi [\sqrt{g} g^{\alpha\beta} G_{\mu}(x) + \epsilon^{\alpha\beta} B_{\mu}(x)] \\ & \partial_{\alpha} X \partial_{\beta} X + \frac{1}{4\pi} \int d^2 \xi \sqrt{g} R^{(2)} \Phi(x) ] = \emptyset \end{aligned}$$

INTERFACE =  $V \langle L, X^{\mu} \rangle = \emptyset$  which is the vertex operator that yields the following Lagrangian for SUSY phenomenon in metaspace [2]:

$$\mathcal{L} = \oint V \langle L, X^{\mu} \rangle = \emptyset$$

#### References

- [1] Sanchez-Rey, Miguel A. The Logical Structure of Space-Time. Vixra.org: 2011
- [2] Sanchez-Rey, Miguel A. Logical Form In Favor of Long Equations. Vixra.org: 2016.