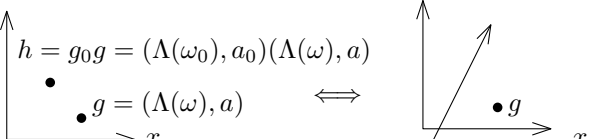

$x' = \sigma^*_{g_0} x$

$\phi_* \frac{\partial}{\partial x^\mu} = \Lambda_\mu{}^\nu \frac{\partial}{\partial x^\nu} = \frac{\partial}{\partial x'^\mu}$ or $\eta \Lambda \eta \frac{\partial}{\partial x} = \frac{\partial}{\partial x'}$

$\phi^* dx'^\mu = \Lambda_\nu{}^\mu dx'^\nu = dx^\mu$ or $\Lambda^{-1} dx' = dx$

e.g. $A'^\mu(\Lambda x(p)) = \Lambda^\mu{}_\nu A^\nu(x(p))$