

Abstract

In this talk we show that Cohen-Glashow Very Special Relativity (VSR) theory can be realized as the part of the Poincare symmetry preserved on a noncommutative Moyal plane with light-like noncommutativity. Moreover, we discuss that the three subgroups relevant to the Cohen-Glashow VSR can also be realized in the noncommutative space-time setting. For all these three cases the noncommutativity parameter $\theta^{\mu\nu}$ should be light-like ($\theta^{\mu\nu}\theta_{\mu\nu} = 0$). A given fixed constant noncommutativity parameter respects the $T(2)$ subgroup of Lorentz while for the $E(2)$ and $SIM(2)$ cases the noncommutativity parameter should have linear and quadratic dependence on coordinates, respectively. We discuss physical implications of this noncommutative realization of the Cohen-Glashow VSR.