

COMMUTATOR AND CONNECTION

The basic equation is:

$$[D_\mu, D_\nu] V^\rho = -\Gamma_{\mu\nu}^\lambda D_\lambda V^\sigma + \dots \quad (1)$$

$$\text{If } \mu = \nu \quad (2)$$

$$[D_\mu, D_\nu] = 0 \quad (3)$$

$$\text{and } \Gamma_{\mu\nu}^\lambda = 0. \quad (4)$$

The basic error in the Einstein field equation is:

$$\Gamma_{\mu\nu}^\lambda \neq 0, \mu = \nu \quad (5)$$

This would mean:

$$[D_\mu, D_\nu] \neq 0, \mu = \nu \quad (6)$$
