Prove Bianchi identity:

Ryror + Ryrr; + Ryrr; + Ryr; = =0. RR Ruy = 1 duk. the prove the identity for a pa Local Minkonski Reference System.

Since Tra = 0 ' (overvient derivative reduces to normal derivative.

We first prove: Rurabix + Rury Tip trurby; ~ 20 I the raise the first inded. RuxarBix = RuxarBix (Since Christoffel symbol=0) =) 2 x Ruy xp = 12x 2 2 xp Jup - 2 xp gua - = [ ] 3 2 4 9 MB - ) 3 VB 9 MX - ) 3 MX 9 VB + ) 3 MB 9 VX D BRUNG = I DBNY guar DBNAgur - JBNX gyat JBNAgry Jarbans - Jarbans - Jarbans - Jarbans - Jarbans Jarbans 0+010= 

Date: Page No.: Thuy Ruyspix + Ruy Ja; B+ RuyBy; == 0 Multiplying with god R vapix + R yor, B+R VBY; = 0 Vence proved

None:RYSPIX + RYXYB + RYBX; 9 =0 setting a = 11 :-RYMBIY TRYVYMIB TRYVBYIM = 0. R'NAB = Rep (Ricci tenor) RRYYN = -RYNY = -RVY -) RUB; Y - RUY; B+ R'VBY; u=0 Rousing one index by multiplying with god RBjy - Ryjs + RByju=0 Setting ==> =) RBjq-RTjp+ROXIN=0. -1. R= R + Rica Scalar.

Rewriting = M ; B = 4 & re-labelling durany indice RMIV - RIM + R MAIN =0. Rug = Ru - Rujy-RutRyjy=0 normal de value - R RIV = I RIN = IDAR