

Corrections

1. Abstract. Line 1, must be "pseudo-Riemannian" (not "pseudo-Riemanniasn")
2. page 1 =35 , -2 (line 2 from below), must be "... transformations which does not preserve ... "

3. Proposition 2, line 1, Must be " $\mathfrak{h} = \mathfrak{g}^0$ " instead " \mathfrak{g}^0 ".

4. Page 3= 37, line -5, in the formula, must be

$$\mathfrak{g}_{min}^0 := \mathbb{R}id + \mathfrak{h} = \mathfrak{g}^0 \subset \mathfrak{g}_{max}^0 = \mathfrak{g}_{min}^0 + \mathfrak{so}(E).$$

5. Page 5=39, line +4, the first matrix must be written as

$$\begin{pmatrix} \mathfrak{g}^0 & \mathfrak{g}^1 & \mathfrak{g}^2 \\ \mathfrak{g}^{-1} & \mathfrak{g}^0 & \mathfrak{g}^1 \\ \mathfrak{g}^{-2} & \mathfrak{g}^{-1} & \mathfrak{g}^0 \end{pmatrix}$$

6. Page 5= 39, line -4, The matrix must be written as

$$\begin{pmatrix} i\mu & 0 & 0 \\ z & -\frac{2\mu}{m}id & 0 \\ i\alpha & -z^* & i\mu \end{pmatrix}$$

(The only change is that instead $-\frac{2\mu}{n}id$ must be $-\frac{2\mu}{m}id$)

7. Page 5=39, line -1. Must be $\mathfrak{su}_{k,\ell}$ instead $\mathfrak{su}_{\ell\ell}$ and $\mathbb{R}T$ instead RT .
8. Page 7=41, 3.4. Step 3. line +1. Must be " we prove that $\mathfrak{g} \dots$ "
9. Page 7=41, line -4 must be "The remaining Jacobi identity ..."
10. Page 7=41, Step 3, line +6, must be "Here ... $\mathfrak{so}(E)$ "
11. Page 8=42, line +4, must be "proportional to" instead "proportional".
12. Page 8=42, line +8 must be "... one can check that $\mathfrak{g} \dots$ "
13. Page 8=42, line +9 must be $SU_{1,m+1}/\mathbb{R}^+ \cdot SU_m \cdot Heis(\mathbb{C}^m)$. (In this formula, n must be changed to m .)
14. Page 8=42, sect 3.5, +4, must be "... decomposition of Minkowski space, $S \in \text{End}(E)$ a symmetric endomorphism and $e_i \dots$ "
15. Page 8=42, two line above theorem 3.3, must be "The Cahen-Wallach space ... G/H is the symmetric manifold ... " (must be added "is").
16. Page 9=43, line +2, must be "... with the dual space \mathcal{S}^* such that $\omega(e_1, e_2) = 1$. The associated ... " (So the text "which is identified with its dual space" must be deleted.)
17. Page 45, line +2, must be "which transforms" instead " which transform"
18. Page 45, Section 5.1, line +3, The "dot" after $\mathfrak{co}(V)$ must be deleted.
19. Page 45, Section 5, line 3, must be "... not conformally flat manifolds "
20. Page 46, line +2. Must be "... Lie algebra $\mathfrak{g} \dots$ "