

## BBS Errata

- page 35, footnote: Replace “commutation relations” by “Poisson brackets”.
- page 44, footnote: Add “This is the open string formula.”
- page 66, Eq. (3.40): Replace by  $\psi(z)\psi(w) = \frac{1}{z-w} + \dots$
- page 71, Eq. (3.73): Replace  $\otimes$  by  $\times$ .
- page 74, line 10: Replace  $f(z)$  by  $w(z)$ .
- page 76, Eq. (3.77): add another colon after  $\partial c(z)$ .
- page 78, line 18: Replace  $\{b_n, Q_B\} = L_n - \delta_{n,0}$  by  $\{b_n, Q_B\} = L_n$ .
- page 80, line 6: Replace  $\{Q_B, b_n\} = L_n - \delta_{n,0}$  by  $\{Q_B, b_n\} = L_n$ .
- page 80, line preceding Eq. (3.92): Replace “functions” by “functionals”.
- page 81, line following Eq. (3.93): Replace “with (” by “(with”
- page 86, Eq. (3.104): Replace  $\partial^{m-1}b$  by  $\partial^{m-2}b$ .
- page 128, last line: Replace “ $SU(1, 1|1)$  or  $OSp(1|2)$ ” by “ $OSp(1|2)$ ”.
- page 130, line 3: Replace  $a$  with  $a_{NS}$ .
- page 135, line 21: Replace “As has already been emphasized” by “As will be explained shortly”.
- page 135, 4 lines from bottom: Replace “fermion” with “spinor”.
- page 141, Eq. (4.133): Replace  $T_F(z)$  by  $2T_F(z)$ .
- page 141, Eq. (4.137): Replace  $\frac{\partial}{\partial z}$  by  $\frac{\partial}{\partial z}$ .
- page 166: Replace Eq. (5.87) with  $S_0^a|i\rangle = \frac{1}{\sqrt{2}}\Gamma_{a\dot{a}}^i|\dot{a}\rangle$  and  $S_0^a|\dot{a}\rangle = \frac{1}{\sqrt{2}}\Gamma_{a\dot{a}}^i|i\rangle$ .
- page 167, first line after Eq. (5.90): Replace “fermionic” by “bosonic”.
- page 178, figure caption: Replace “arrow” with “arrows”.
- page 191, 9 lines from bottom: replace  $\tilde{p}^{25}$  by  $\tilde{p}$ .

- page 197, Eq. (6.33): Replace by  $(\lambda^1)^l_m (\lambda^2)^m_n (\lambda^3)^n_l = \text{Tr}(\lambda^1 \lambda^2 \lambda^3)$ .
- page 197, 5 lines from bottom: Replace  $i, j = 1, 2, \dots, N$  by  $\bar{i}, j = 1, 2, \dots, N$ .
- page 197, Eq. (6.34): Replace  $|\phi, k, ij\rangle$  by  $|\phi, k, \bar{i}j\rangle$ .
- page 198, line 1: Replace  $\lambda_{ij}$  by  $\lambda^i_j = \lambda_{\bar{i}j}$ .
- page 198, Eq. (6.35): Replace by  $|\phi, k, \lambda\rangle = \sum_{\bar{i}, j=1}^N |\phi, k, \bar{i}j\rangle \lambda_{\bar{i}j}$ .
- page 198, line before Eq. (6.38): Replace  $i$  by  $\bar{i}$ .
- page 203, line 2: Replace by  $p = \frac{K}{R} - \frac{\epsilon\theta}{2\pi R}$ .
- page 212, lines 3 and 4: Replace “The  $(p+1)$ -dimensional world volume of the branes,  $X$ , is the base of  $E$  and  $E'$ .” by “In general, the 10-dimensional spacetime,  $X$ , is the base of  $E$  and  $E'$ .”
- page 215, line 16: Replace  $O \cup O'$  by  $O \cap O'$ .
- page 219, line 6 of Exercise 6.7: Replace  $(6, 7, 8, 9)$  by  $(4, 5, 8, 9)$ .
- page 228, Eq. (6.94): Insert factors of 2 in front of  $B_{9\mu}$  and  $\tilde{X}^9$ .
- page 232, line 2: Replace “Chapter 5” by “Exercise 6.2”.
- page 232, Eq. (6.102): Replace by

$$A_1 = -\frac{\theta}{2\pi R} = -\frac{\tilde{X}^1/\tilde{R}}{2\pi R} = -\frac{1}{2\pi\alpha'} \tilde{X}^1.$$

- page 232, Eq. (6.109): Replace  $b_{\alpha\beta}$  by  $k^{-1}b_{\alpha\beta}$ .
- page 243, 7 lines from bottom: Replace  $-\frac{k^4}{8}(F_{\alpha\beta}F^{\alpha\beta})^2 + \frac{k^4}{32}F_{\alpha\beta}F^{\beta\gamma}F_{\gamma\delta}F^{\delta\alpha}$  by  $+\frac{k^4}{32}(F_{\alpha\beta}F^{\alpha\beta})^2 - \frac{k^4}{8}F_{\alpha\beta}F^{\beta\gamma}F_{\gamma\delta}F^{\delta\alpha}$ .
- page 245, Problem 6.4: Add the following sentence: Work in momentum space and assume that the two spinors have the same momentum  $p_\mu$ .
- page 254, line 8: Replace  $3c/2$  by  $2c/3$ .
- page 254, last line: Replace “Chapter 5” by “Chapter 4”.
- page 270, first line before Eq. (7.78): Replace “Exercise 7.5” by “Exercise 7.6”.
- page 270, second line after Eq. (7.78): Replace  $O(n, n, \mathbb{Z})$  by  $O(n, n; \mathbb{Z})$ .

- page 276, first line after Eq. (7.102): Replace “Exercise 7.4” by “Exercise 7.5”.
- page 283, lines 8 and 14: Replace  $O(n, n, ; \mathbb{R})$  by  $O(n, n; \mathbb{R})$ .
- page 283, line 13: Replace  $O(n; \mathbb{R})$  by  $O(n, \mathbb{R})$ .
- page 290, line 2: Replace  $\tilde{\alpha}_1^j$  by  $\tilde{\alpha}_{-1}^j$ .
- page 290, line 6: Replace  $I = 1$  by  $J = 1$ .
- page 290, 10 lines from bottom: Replace  $|a\rangle_{\mathbb{R}}$  and  $|b\rangle_{\mathbb{R}}$  by  $|\dot{a}\rangle_{\mathbb{R}}$  and  $|\dot{b}\rangle_{\mathbb{R}}$
- page 291, line 11: Replace (7.125) by (7.124).
- page 297: Replace Eq. (8.1) by

$$\{Q_\alpha^I, Q_\beta^J\} = 2M\delta^{IJ}\delta_{\alpha\beta} + 2X^{IJ}\gamma_{\alpha\beta}^0 + 2iY^{IJ}(\gamma^5\gamma^0)_{\alpha\beta}$$

- page 297, line following Eq. (8.1): Replace  $Z^{IJ}$  by  $Z^{IJ} = X^{IJ} + iY^{IJ}$ .
- page 297, 2 lines before Eq. (8.2): Replace the line by “By a suitable transformation (see Exercise 8.2),”
- page 309, Eq. (8.31): Replace  $\mathbf{H}^{(3)}$  by  $\mathbf{H}^{(3)} \wedge dx^{11}$ .
- page 310, line 4: Add the sentence: The R–R sector fields  $A_1$  and  $A_3$  are called  $C_1$  and  $C_3$  in the following.
- page 311, 3rd line following Eq. (8.42): Replace  $\exp(\chi\Phi)$  by  $\exp(-\chi\Phi)$ .
- page 311, 5th line following Eq. (8.42): Replace  $\chi = -2$  by  $\chi = 2$ .
- page 319, line 7: Replace  $\chi = -2$  by  $\chi = 2$ .
- page 319, line 8: Replace  $\chi = -1$  by  $\chi = 1$ .
- page 322, 4 lines from bottom: replace  $|H_3|^3$  by  $|H_3|^2$ .
- page 344, Eq. (8.141): Replace  $\pi$  by  $\pi^2$ .
- page 352: second line from bottom: Replace  $ds$  by  $ds^2$ .
- page 363, line 5: Replace “cut in half” by “reduced”.
- page 370, line 5: Replace “ $(n - 1)$ -power” by “ $n$ th power”.

- page 380, Eq. (9.71): Replace  $g_{kn}$  by  $g_{kl}$ .
- page 381, Eq. (9.75): Replace  $dz^{\bar{c}}$  by  $d\bar{z}^{\bar{c}}$  twice and  $dz^{\bar{a}}$  by  $d\bar{z}^{\bar{a}}$  once.
- page 398, 8 lines from bottom: Replace  $\partial_a\Omega$  by  $\partial_\alpha\Omega$ .
- page 403, line 6: Add  $C_{i\bar{j}k\bar{l}}$ .
- page 432: Eq. (9.208) should be  $4a^3 + 27b^2 = 0$ .
- page 437, line following Eq. (9.222): Replace  $A_n$  by  $A_{n-1}$ .
- page 445, Eq. (9.245): Replace  $A_{p-1}^{c.e.}$  by  $A_{p+1}^{c.e.}$ .
- page 448, 2 lines before Eq. (9.259): Replace  $J^m_n$  by  $J_m^n$ .
- page 454, Problem 9.14: Replace  $J$  by  $\omega$ .
- page 455, Problem 9.18: Replace  $(i)-(iii)$  by  $(1) - (3)$ .
- page 474, line above Eq. (10.63): Replace “derivative” by “derivatives”.
- page 482, Eq. (10.88): Replace  $\sum_{M=5}^9$  by  $\sum_{M=4}^9$ .
- page 490, line before Eq. (10.128): Replace  $r$  by  $\rho$ .
- page 500, line 1: Replace “10.18” by “10.16”.
- page 514, Eq. (10.222): Insert a factor of  $1/6$  in the RHS.
- page 514, Eq. (10.224): Insert a factor of  $1/6$  in the RHS.
- page 514, Eq. (10.225): Replace  $\Phi + \Phi_0$  by  $\Phi - \Phi_0$ .
- page 515, Eq. (10.229): Replace  $i\partial\bar{\partial}J$  by  $-i\partial\bar{\partial}J$ .
- page 548, Problem 10.13: Replace the equation for the Kähler form by

$$J = \frac{1}{3}rdr \wedge e^5 + \frac{1}{6}r^2(e^2 \wedge e^1 + e^3 \wedge e^4).$$

- page 552, line 4: Replace “such the LHC” by “such as the LHC”.
- page 555, line 2: Replace “introduced by” by “introduced (for  $r > r_H$ ) by”.
- page 566, line 5: Replace  $R$  by  $r_H$ .

- page 570, 3rd line from bottom: Replace “symplectic matrix” with “symplectic metric”.
- page 583, line 1: Replace “left as a homework problem” by “left to the reader”.
- page 593, first line before Eq. (11.131): Replace “Eq. (11.125)” by “Eq. (11.120)”.
- page 593, Eq. (11.133): Replace  $\bar{Z}$  by  $\bar{Z}_*$  twice.
- page 596, last line: Replace “and rotating black holes” by “with rotation”.
- page 620: Replace the sentence following Eq. (12.35) by “Here,  $\omega_n$  is the volume form for the unit  $n$ -sphere. The charge  $Q$  is proportional to  $N$ , the R–R charge of the brane, which is an integer.”
- page 626, Eq. (12.54): Multiply the RHS by  $-1$ .
- page 629, second line after Eq. (12.65): Replace “Exercise 12.13” by “Exercise 12.3”.
- page 636, 6 lines from bottom: Replace “a length” by “(length)<sup>1/2</sup>”.
- page 645, Eq. (12.97): Replace  $(dx^2)_{d+1}$  by  $(dx^2)_d$ .
- page 649, line 5: Replace  $z \rightarrow z/a$  by  $z \rightarrow az$ .
- page 673, first line before Eq. (12.149): Replace “Exercise 12.8” by “Exercise 12.10”.