K. Scharnhorst: *Background field method and effective action.* Harvard University Cambridge Preprint HUTP 87/A087, 32 pp..

Misprints, errata, addenda:

- P. 3, eq. (2.15), the left hand side of the equation should read correctly:

$$\Gamma_{cl}[\varphi + \bar{\varphi}] \; + \; \int dx \; J(x)\varphi(x) \;\; = \;\; \ldots$$

- P. 7, eq. (2.36), $\Pi(\tau\bar{\varphi}; z; z')$ should read correctly: $\Pi(\tau\bar{\varphi}; z, z')$.
- P. 16, eq. (5.11), $K^{ab}_{\mu\nu}(\bar{B}; \alpha; x, x')$ should read correctly: $K^{ab}_{\mu\nu}(\bar{B}; \alpha; x)$.
- P. 22, eqs. (5.42)-(5.44), $F^{b}_{\mu\mu'}(\bar{B})$ should be multiplied by a factor of g.
- P. 28, eq. (B 6), the symbol $\bar{J}^a_\mu$ should read correctly: J^a_μ.
- P. 29, eq. (B 12), the r.h.s. of the equation should read correctly:

$$\begin{aligned} \ldots \;\; = \;\; & \int d^4z \; \left\{ D^{a'b}_{\nu} \left(\bar{B} + \frac{\delta}{i\delta J'} \right)_{y'} \; \delta^{(4)}(y' - z) \right. \\ & \left. - \; i \; \bar{J}^c_\mu(z) \; g \; f^{cbe} \; \frac{\delta}{\delta J'^{\; e}_{\mu}(z)} \frac{\delta}{\delta J'^{\; a'\nu}(y')} \right\} \\ & \times \; \frac{\delta}{\delta \eta^a(y)} \frac{\delta}{\delta \bar{\eta}^b(y')} W[J', \eta, \bar{\eta}, \bar{B}]|_{\eta = \bar{\eta} = 0, J' = 0} \; . \end{aligned} \tag{B 12}$$

- P. 30, eq. (B 14), the r.h.s. of the equation should read correctly:

$$\begin{aligned} \ldots \;\; = \;\; & - \; \delta^{aa'} \; \delta^{(4)}(y - y') \\ & - \; i D^{a'b'\mu'}(\bar{B})_{y'} \int d^4z \; \bar{J}^c_\mu(z) \; g \; f^{cbe} \; \frac{\delta}{\delta J'^{\; e}_{\mu}(z)} \frac{\delta}{\delta J'^{\; b'\mu'}(y')} \\ & \times \; \frac{\delta}{\delta \eta^a(y)} \frac{\delta}{\delta \bar{\eta}^b(z)} W[J', \eta, \bar{\eta}, \bar{B}]|_{\eta = \bar{\eta} = 0, J' = 0} \end{aligned} \tag{B 14}$$

February 2010