

Errata

Erratum: Self-dual Chern-Simons solitons and two-dimensional nonlinear equations [Phys. Rev. D 43, 1332 (1991)]

Gerald V. Dunne, R. Jackiw, So-Young Pi, and Carlo A. Trugenberger

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Our discussion at Eq. (3.28) of the relation between the two-dimensional Chern-Simons and self-dual equations (3.8) and (3.9),

$$D_- \Psi = 0 = D_+ \Psi^\dagger, \quad \partial_- A_+ - \partial_+ A_- + [A_-, A_+] = \frac{2}{\kappa} [\Psi^\dagger, \Psi], \quad A_\pm = -A_\mp^\dagger,$$

and the four-dimensional self-dual Yang-Mills equation (3.27),

$$F^{\mu\nu} = \frac{1}{2} \epsilon^{\mu\nu\alpha\beta} F_{\alpha\beta}, \quad F_{\mu\nu} \equiv \partial_\mu W_\nu - \partial_\nu W_\mu + [W_\mu, W_\nu],$$

is marred by sign errors. First, it is necessary to state that the four-dimensional space is equipped with the metric $g_{\mu\nu} = \text{diag}(1, 1, -1, -1)$. Second, the dimensional reduction is defined by $\partial_3 W_\mu = 0 = \partial_4 W_\mu$ and $x = x^1$, $y = x^2$, $A_- = W_1 - iW_2$, $\Psi = \sqrt{\kappa/2} (W_3 - iW_4)$. These expressions replace the garbled (3.28).

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Erratum: Compositeness and the reduction of couplings [Phys. Rev. D 43, 4129 (1991)]

Fred Cooper and Juan Perez Mercader

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It was brought to the authors' attention that the idea to reduce the number of coupling constants in a field theory by imposing compositeness was first discussed, in the context of the Georgi-Glashow model, by Lemmon and Mahanthappa [1]. This paper also contains references to earlier studies related to this problem.

[1] J. Lemmon and K.T. Mahanthappa, Phys. Rev. D **13**, 2907 (1976).