Erratum: “Geometric phase, bundle classification, and group representation” [J. Math. Phys. 37, 1218 (1996)]

Ali Mostafazadeh

Citation: [Journal of Mathematical Physics](#) **40**, 3697 (1999); doi: 10.1063/1.532919

View online: <http://dx.doi.org/10.1063/1.532919>

View Table of Contents: <http://aip.scitation.org/toc/jmp/40/7>

Published by the [American Institute of Physics](#)

Articles you may be interested in

[Geometric phase, bundle classification, and group representation](#)

[Journal of Mathematical Physics](#) **37**, 1218 (1998); 10.1063/1.531457

[Geometries of quantum states](#)

[Journal of Mathematical Physics](#) **37**, 2662 (1998); 10.1063/1.531535

[Differential geometry on SU\(3\) with applications to three state systems](#)

[39](#), (1998); 10.1063/1.532618

[The geometry of coherent states](#)

[Journal of Mathematical Physics](#) **40**, 2568 (1999); 10.1063/1.532716

[Comment on “Geometric phase, bundle classification, and group representation” \[J. Math. Phys. 37, 1218 \(1996\)\]](#)

[Journal of Mathematical Physics](#) **40**, 3693 (1999); 10.1063/1.532918

[Coherence properties of electromagnetic radiation](#)

[Physics Today](#) **14**, 28 (2009); 10.1063/1.3057599

Erratum: “Geometric phase, bundle classification, and group representation” [J. Math. Phys. 37, 1218 (1996)]

Ali Mostafazadeh

Koç University, Istinye 80860 Istanbul, Turkey

(Received 19 October 1998; accepted for publication 11 January 1999)

[S0022-2488(99)03506-9]

Azad *et al.*,¹ have informed me of a mistake in Eq. (64) of my paper, Ref. 2, which has led to another mistake in Eq. (61). These equations only hold for $N=1$. For arbitrary N , they must be changed to

$$c_1(TCP^N) = \chi(CP^N) = N + 1, \quad (1)$$

$$\text{Det}(TCP^N) = \underbrace{E^* \otimes E^* \otimes \cdots \otimes E^*}_{N+1 \text{ times}}, \quad (2)$$

respectively. Equation (1) can be easily inferred from the computation of the total Chern class of TCP^N which can be found in Example 6.3 of Ref. 3. Equation (2) follows from Eq. (1) using the arguments given in Sec. IV of Ref. 2, below Eq. (61).

Note that the mistake that occurred in Eqs. (61) and (64) does not change any of the conclusions of Ref. 2.

¹H. Azad, M. N. Qureshi, and M. Ziad (unpublished).

²A. Mostafazadeh, J. Math. Phys. **37**, 1218–1233 (1996).

³T. Eguchi, P. B. Gilkey, and A. J. Hanson, Phys. Rep. **66**, 213 (1980).