**Erratum: New scheme for color confinement and violation
of the non-Abelian Bianchi identities
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The proofs of the Dirac quantization condition of g_m^a in $SU(2)$ and $SU(3)$ are incorrect. Without knowing the explicit form of the gauge-field configuration corresponding to violation of the non-Abelian Bianchi identities (VNABI), it is impossible to prove the Dirac quantization condition theoretically. Since the authors expect that VNABI plays an important role in color confinement, the Dirac quantization conditions for g_m^a in $SU(2)$ and $SU(3)$ are assumed.

On page 1, in the Abstract, the sentence starting “The charge of each component of VNABI is quantized à la Dirac” should be removed. Instead, the sentence starting “The charge of each component of VNABI in $SU(2)$ is assumed to satisfy the Dirac quantization condition” is inserted.

On page 3, right column, Sec. II B should be deleted completely.

The simultaneous diagonalization of VNABI J_μ for all μ cannot be proved from the Coleman-Mandula theorem and Lorentz invariance. When the simultaneous diagonalization of J_μ for all μ is realized, the condensation of J_μ and the electric color invariance of the confinement vacuum can be compatible.

On page 4, right column, the beginning of the new Sec. II B, up to the sentence starting with words “Then one gets” is changed as follows:

Now we propose a new mechanism of color confinement in which VNABI J_μ plays an important role in the vacuum. For the scenario to be realized, we make two assumptions concerning the property of VNABI.

- (i) The Dirac quantization condition between the gauge coupling g and the magnetic charge g_m^a for $a = 1, 2, 3$ in $SU(2)$ (for $a = 1 \sim 8$ in $SU(3)$):

$$gg_m^a = 4\pi n^a,$$

where n^a is an integer.

- (ii) $[J_\mu(x), J_{\nu \neq \mu}] = 0$, which makes it possible to diagonalize VNABI J_μ simultaneously for all μ . Then VNABI can be diagonalized by a unitary matrix $V_d(x)$ as follows:

$$V_d(x)J_\mu(x)V_d^\dagger(x) = \lambda_\mu(x)\frac{\sigma_3}{2},$$

where $\lambda_\mu(x)$ is the eigenvalue of $J_\mu(x)$ and is then color invariant but magnetically charged.

On page 5 left, the equation after Eq. (21) should be modified as

$$\partial_\mu \lambda_\mu(x) = -\frac{1}{2} \lambda_\mu(x) (\Phi(x) \partial_\mu \Phi(x) + \partial_\mu \Phi(x) \Phi(x)) = 0.$$

On page 14, left column, in the Conclusions,

- (i) (3) is changed as follows:

All magnetic charges are assumed to satisfy the Dirac quantization condition.

- (ii) After (4), a sentence is inserted.

(5) VNABI are assumed to satisfy $[J_\mu, J_{\nu \neq \mu}] = 0$ leading to the simultaneous diagonalization for all μ .

- (iii) Old (5) is changed into (6).

Finally, the above listed corrections do not influence our numerical results and our conclusions in the part concerning those numerical results.