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Correction to: "Existence and Regularity Results for Harmonic Maps with Potential"

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Atsushi TACHIKAWA

Tokyo University of Science

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In the proof of Theorem 2.3 of the above mentioned paper, on p. 200, the author gave the following estimate.

$$\begin{aligned}\int_\Omega e(u)d\mu &\le \int_\Omega G(u)d\mu + E_G(f) \\ &\cdots\cdots \\ &\le E_G(f) + b_0\mathrm{vol}(\Omega) + b_1\int_\Omega \{\varepsilon|u|^{2^*} + \varepsilon^{-\frac{\gamma}{2^*-\gamma}}\}d\mu \\ &\le c_3(E_G(f), \Omega, g, \varepsilon, \gamma, b_0, b_1) + \varepsilon c_4(\Omega, g, h, b_1)\int_\Omega e(u)d\mu\,.\end{aligned}$$

However, the last inequality is not correct. In the last term c_4 depends on $\|u\|_{L^\infty}$ also. Therefore the remaining part of the proof is not valid. We must treat the term $\int |u|^{2^*}d\mu$ more carefully. Moreover, for the case that $m = 2$, since $2^* = +\infty$, some small changes are necessary. From the 14th line of page 200, the proof should be changed as follows.

Now, let us estimate the right hand side of (2.18). We proceed as if we are assuming that $m = 3$ or 4, however, by replacing 2^* with a sufficiently large number, the proof will be valid also for $m = 2$.

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