

Erratum II to Magnetic Bottles in connection  
with superconductivity  
JFA 185, p. 604-680 (2001)

Bernard Helffer

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In my above mentioned paper with A. Morame, a few other inaccuracies should be mentioned in addition of the previous erratum. These inaccuracies do not affect the main results of the paper. These inaccuracies were observed when writing end of 2009 a new paper with Y. Kordyukov.

1. The formula (7.48) should read:

$$\| |z|^k u_h \|_{L^2(\Omega)} \leq C(h^{k/2} + k^{(k+1)/4}) \|u_h\|_{L^2(\Omega)}, \quad \forall k \geq 0.$$

2. The formula in Lemma 7.11 should read:

$$\|(P_{h,A^m} - \lambda^{(1)}(h))\chi u_h\|_{L^2(\Omega)} \leq Ch^{(m+3)/4} \|\chi u_h\|_{L^2(\Omega)}, \quad \forall h \in (0, h_0].$$

3. The formula (7.51) should read:

$$\| |z|^k (hD - A)u_h \|_{L^2(\Omega)} \leq Ch^{(k+3)/4} \|u_h\|_{L^2(\Omega)}.$$

4. The second formula on p. 638 should read:

$$\begin{aligned} \| |z|^k (hD - A)u_h \|_{L^2(\Omega)}^2 &\leq C\lambda^{(1)}(h)h^{(k+1)/2} \|u_h\|_{L^2(\Omega)}^2 \\ &+ Ch \| |z|^k (hD - A)u_h \|_{L^2(\Omega)} \| |z|^{k-1} u_h \|_{L^2(\Omega)}. \end{aligned}$$

5. The next formula reads:

$$\| |z|^k (hD - A)u_h \|_{L^2(\Omega)}^2 \leq C\lambda^{(1)}(h)h^{(k+1)/2} \|u_h\|_{L^2(\Omega)}^2 + Ch^2 \| |z|^{k-1} u_h \|_{L^2(\Omega)}^2.$$

6. The formula in line 12 on p. 638 should read:

$$\|(P_{h,A^m} - \lambda^{(1)}(h))\chi u_h\|_{L^2(\Omega)} \leq Ch^{(m+3)/4} \|u_h\|_{L^2(\Omega)}.$$

7. The formula (7.53) should read:

$$\text{distance}(\lambda^{(1)}(h), \text{Sp}(P_{h,A^m})) \leq Ch^{(m+3)/4}.$$

8. The formula (7.57) should read:

$$\text{distance}(\lambda_m(h), \text{Sp}(P_{h,A,\Omega})) \leq Ch^{(m+3)/4}.$$

9. The text in line 8-11 on p. 639 should be modified as follows:

So, if we want to analyze the bottom of the spectrum of  $P_{h,A,\Omega}$  modulo an error of order  $\mathcal{O}(h^{(m+3)/4})$ , we just have to study the bottom of the spectrum of  $P_{h,A^m}$ . In order to determine the coefficient of  $h^2$  in the expansion, we will choose in the next subsections:  $m \geq 6$ .