

* In the proof of Proposition 1.15, the term $\|R_\alpha\|_{H^s}$ should be replaced by the sum over $|\alpha| \leq s$ of $\|R_\alpha\|_{L^2}$, and in the proof of Proposition 2.2, the term $\|R_s^\varepsilon\|_{H^s}$ should be replaced by $\|R_s^\varepsilon\|_{L^2}$.

* From the middle of p.36, until the end of Section 2.2, T should be replaced by T_0 . And as noted on p.39, we can eventually take $T_0 = T$.

* In Proposition 2.6, a power of ε is missing. The error estimate should read

$$\left\| a^\varepsilon - a^{(0)} - \varepsilon a^{(1)} \right\|_{L^\infty([-T, T]; H^{s-4})} \leq C \left(\varepsilon^2 + \|a_0^\varepsilon - a_0 - \varepsilon a_1\|_{H^{s-4}} \right).$$

* In the proof of Lemma 2.18, b should be g .

* p. 266, the equation satisfied by yu contains a typo, and should read

$$\left(i\partial_t + \frac{1}{2}\Delta \right) yu = \frac{1}{2} \langle y, \nabla^2 V(q(t)) y \rangle yu + \nabla u.$$

* p. 266, some factors are missing in the commutator formulas:

$$\begin{aligned} [y_j^k, \Delta] &= -2ky_j^{k-1}\partial_j - k(k-1)y_j^{k-2}, \\ [\partial_j^k, \langle y, \nabla^2 V(q(t)) y \rangle] &= 2k \sum_m \partial_{jm}^2 V(q(t)) y_m \partial_j^{k-1} + k(k-1) \partial_{jj}^2 V(q(t)) \partial_j^{k-2}. \end{aligned}$$