Corrigenda of “Symplectic Topology and Floer Homology”

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1

Hamiltonian Dynamics and Symplectic Geometry

(i) p. 27, one line below Eq. (2.2.7): Remove the word 'closed'.

(ii) p.51, 3 lines above (2.4.33): The equation should be changed to

$$X_t^s = \frac{\partial \phi_t^s}{\partial t} \circ (\phi_t^s)^{-1}, \; Y_t^s = \frac{\partial \phi_t^s}{\partial s} \circ (\phi_t^s)^{-1}.$$

(iii) p. 65:

- In (3.2.7); Remove the negative sign on RHS.
- In 2 lines above (3.2.8); insert v in front of the equality signs in both formulae.
- In (3.2.8); Insert the negative sign in between the two factors of LHS.

(iv) p. 167 in (6.3.19); Insert $\frac{1}{h}$ in front of the integral sign.

(v) p. 168 in the first two formulae, do the same as above in p. 167.

2

Rudiments of Pseudoholomorphic Curves

(i) p. 189 in (7.3.19): the matrix should be its transpose. As a result, the formula for $\overline{\partial}_J u$ in the last line of the page, it should be also the transpose of the current matrix.

(ii) p. 201 line 4; Replace the reference quote "(GT77) Theorem 9.20" by "(GT77) p. 67, Problem 4.5".

(iii) p.213 line -3: Replace $2 - p$ by $p - 2$.

(iv) p. 326 (10.1.1); Replace 'P' by 'L'.

(v) p.363 line -3: Replace the second C_∞ by C_γ.

3

Lagrangian Intersection Floer homology

(i) p. 21; All H^α in this page should be replaced by H^β. **I like to thank Hiro Tanaka for pointing this out.**

(ii) p. 21 line 5; Replace H^ρ by H^s

(iii) In the equations below (12.5.24), replace $J^{\rho(\tau)}$ by J^s and H^ρ by H^s.

(iv) p. 21; In this page definition of the chain map $\psi_{(2)}$ is incorrect. More precisely, the statement in the 6 lines above Exercise 12.5.5 is incorrectly claimed. The correct statement and the definition of $\psi_{(2)}$ should go as follows:

For each given z^- and z^+, we observe that the parameterized moduli space $\mathcal{M}^{\text{para}}(z^-, z^+) \to [0,1]$ carries the $\mathbb{R}$-action induced by τ-translations on the domain $\mathbb{R} \times [0,1]$ of u. We consider the quotient

$$\mathcal{M}^{\text{para}}(z^-, z^+)/\mathbb{R}.$$

Now we consider the pair (z^-, z^+) satisfying $\mu(z^-) = \mu(z^+)$. Then the dimension of this quotient becomes 0. Under this hypothesis, we can show that for a generic choice of $\{J^s\}_{s\in[0,1]}$, the quotient space becomes a compact zero dimensional manifold. Then we define the matrix element of $\langle \psi_{(2)}(z^-), z^+\rangle$ by the formula

$$\langle \psi_{(2)}(z^-), z^+\rangle = \#\left(\mathcal{M}^{\text{para}}(z^-, z^+)/\mathbb{R}\right).$$

(v) p. 206 in Exercise 17.4.9: Replace the last statement by *Prove that any stable (resp. unstable) manifold of $p \in \mathrm{Crit}\varphi$ is isotropic (resp. coisotropic).*

(vi) p. 206 line 2 of the proof of Proposition 17.4.11: replace 'unstable' by 'stable'.

(vii) p. 207 line -3: Change '' by "$\Sigma_L > 2n + 1 > 2$".

(viii) p. 208 line 9 & 10 from the end of the proof of Theorem 17.4.13:

   (a) Change '$\Sigma_L = 2(n + 1) = \dim L + 1$' to "$\Sigma_L = 2(n + 1) \geq \dim L + 1$".

(b) Then in line 10, change ‘Theorem 17.3.9 (2)’ by “Theorem 17.3.9 (1) or (2)”. **I like to thank Yuhan Sun for pointing out the errors mentioned in p. 207 and 208.**