Semilinear Schrödinger Equations, T.Cazenave

Errata Sheet

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This errata sheet is for one of the textbooks of Prof. T.Cazenave on non-linear Schrödinger equations, it's not official. If you find any error in this file, please send me the email (d04221001@ntu.edu.tw). It's really helpful for me. Thanks!! Moreover, We did not include those errata found by Jinghua Yao, please take a look at here.

Page 6, Theorem 1.2.5., I don't think we need to assume $\{f_n\}$ is bounded in $L^q(I,Y)$. Take a look at mathoverflow.

Page 60, line 7 of the proof; $[u(|v|-|u|+|u|(u-v))] \to [u(|v|-|u|)+|u|(u-v)]$.

Page 61, line 3 and 5, $F(u+tv) \to F(|u+tv|)$ and $F(u) \to F(|u|)$.

Page 87 (4.2.12), the exponent of $\|\mathbf{1}_{|u_1|+|u_2|>M}(|u_1|+|u_2|)\|_{L^\infty}$ should be $\frac{4}{N-2}$, not 1.

Page 92 line 1 $C(H^1(\mathbb{R}^N)), H^{-1}(\mathbb{R}^N)) \to C(H^1(\mathbb{R}^N), H^{-1}(\mathbb{R}^N))$. (Delete a parenthesis.)

Page 92 Remark 4.3.2, change Remark 2.7.7 to 2.7.2.

Page 94 line -1, Page 95 line 4 and 7, change L^q to $L^{q'}$. (3 times.)

Page 216 line 8, $8t^2 \to 4t^2$.

Page 220 line 9, $\alpha \geq 4/N \to \alpha > 4/N$.

Page 253 Remark 7.9.3, [320] $\to$ [230].

Page 256 line 3, according to section 2.2(c) of Berestycki-Lions' 1983 famous paper in ARMA, I think it's only known that (8.1.4) has no radial solution when $\omega < 0$. I wonder if there is some known results about the decay rate of sign-changing solutions of semilinear elliptic PDEs.

Page 260 the expression between (8.1.26) and (8.1.27), $\frac{1}{2} \to \frac{\omega}{2}$.

Page 310 [104], the title is "Conservation laws and time decay for the solutions of some nonlinear Schrödinger-Hartree equations and systems".

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Page 313 [159], this article was published in "Nonlinear Analysis 12 (1988), no. 3, 313-319".

Page 314 [189], this article was published in "Math. Z. 200 (1989), no. 4, 467-483".