

Typos of AMS-GSM 192

Lectures on Navier-Stokes Equations

I thank sincerely those who notified me the typos. Their names are listed in the end of each typo.

1. Page xi line -6: $\operatorname{div} v$ should be $\operatorname{div} \sigma$. (Ruichao Jiang 2026.01)
2. P46 line 2: $\operatorname{div} v = f$;
line 6: [57, III.3] (the page # refers to first ed. of [57]) (2024.05)
3. P59 (3.28): χ missing in the first integral, θ missing in the second integral. (2022.01)
4. P60 (3.29): a factor of 2 missing in front of the integral. (2022.01)
5. P63 line -2: $(1, 2)$ should be $(2, 3)$.
P64 line 8: 2δ should be 3δ . (2022.01)
6. P73 lines -1 and -2: $u + w$ should be $u - w$. (2022.01)
7. P75 line -1: the minus sign should be removed. (2022.01)
8. P83 line 1: The cases $q > 9$ are no longer open, as counterexamples are found in Z. Bradshaw, C.-C. Lai, and T.-P. Tsai, Math. Ann. 388, 3053–3126 (2024). (2024.07)
9. P83 lines 4, 6 and 12: “linear” should be replaced by “sublinear” or “subadditive”. The map U defined by (5.16) is sublinear, not linear. Marcinkiewicz interpolation theorem is applicable to subadditive maps, see [199, Appendix B]. (C.-C. Lai 2021.03)
10. P83 L8 “ $i = 1, 2$ ” should be replaced by “ $i = 0, 1$ ” (2021.03)
11. P100 L -7: We have $\operatorname{curl} v$ smooth and hence $v \in L^\infty C_{\operatorname{loc}}^2$ by a derivative version of Lemma 2.11, see e.g. [155, Proposition A.2]. This is needed to show $\partial_t v \in L_t^{3/2} L_x^\infty$. (Yang 2025.01)
12. P105 L11 “ $q > 3$ ” should be replaced by “ $q < 3$ ” (2022.02)
13. P162 L-8: $f = -v \otimes v$ (Chernobai 2019.07)
14. P186 display after (9.40): $|v|$ and $|\nabla v|$ should be switched. (2022.02)
15. P186 L-7 and L-11: u should be w . (2022.02)