Corrections for Chapter 4 in [1](Microlocal Analysis by Alexander Strohmaier)

Page 88: In equation (4.3) replace “sup” by “sup_k”.
Page 97: after Proposition 3, Line 2: ”Of course, for distributions...” should be ”Of course, for distributions with compact support...”
Page 100: the integrals in the fourth and fifth formula on that page are all over η and not over ξ. The dξ needs to be replaced by dη on that page.
Page 102: Replace “u” by “φ” in the first formula.
Page 102/103: In Theorem 7 and its proof two inclusions “WF(φ) ⊂ WF(f φ)” should read “WF(φ) ⊃ WF(f φ)” and correspondingly “Σ_x(φ) ⊂ Σ_x(f φ)” should read “Σ_x(φ) ⊃ Σ_x(f φ).”
Page 106: The Fourier factor in from of the Fourier transform of the delta distribution should be \(\frac{1}{(2\pi)^{n/2}}\).
Page 106: Corollary 2: ”such that \(dF^x_φ(η) \neq ξ\) for all \(V \times W\)” needs to be replaced by ”such that \(dF^x_φ(η) \neq ξ\) for all \((x, ξ) \in V \times (W \cup \{0\})\).
Page 106: In the inequality of Lemma 4 interpret

\[ \sup_x |f'(x)|^{-2k} \quad \text{as} \quad \sup_{x \in \text{supp} u} |f'(x)|^{-2k}. \]

Page 106: Proof of Corollary 2: ”Theorem 4” should be ”Lemma 4”.
Page 106: Statement of Lemma 4: ”for all f in a bounded subset of \(C^k\)” should be replaced by ”for all f in a bounded subset of \(C^{k+1}\)”. Similarly, in the proof on page 107, second line before the proof finishes k should be replaced by \(k + 1\).
Page 106: Proof of Corollary 2: \(f(x) = |ξ|^{-1}(ξ, x)\) should be replaced by \(f(x) = -|ξ|^{-1}(ξ, x)\).
Page 107: In corollary 2
Page 108/109: In the Proof of Theorem 9, Step 1 the “open neighborhood \(O\) of \(x_0\)” is an “open neighborhood \(O\) of \(x_0\)”.
Replace “\(\cup_{ξ \in O}(\{ξ | dF^x_φ(ξ) ≤ 0\} \cup \{ξ | \|dF^x_φ(ξ)\| ≤ \varepsilon\|ξ\|\})\)” and “\(dF^x_φ(ξ) > \varepsilon > 0\)” by “\(\|dF^x_φ(ξ)\| > \varepsilon\|ξ\|\)”.
The “such chosen maps” are the “such chosen sets \(O\)”.
Page 109: After second formula replace “\(dF^x_φ(ξ) > \varepsilon\)” by “\(\|dF^x_φ(ξ)\| > \varepsilon\|ξ\|\)”.
“\(\text{supp} χ \in O_α\)” should be “\(\text{supp} χ \subset O_α\)”.
Page 110: Replace the beginning of the first sentence of the proof of Theorem 10 by: “For any point \(x_0 \in U_1\) and closed cone \(W \subset \mathbb{R}^n\) such that \(\{x_0\} \times W \cap dF^x(Γ) = \emptyset\)”.
Page 110: In the proof of theorem 10 ”\(\|dF^x_φ(η) - ξ\| - \varepsilon\)” needs to be replaced by ”\(\|dF^x_φ(η) - ξ\| > \varepsilon\|ξ\|\)”.
Page 111: it should be “and \(χ \in \mathcal{D}(O)\) with \(χ(x_0) = 1\)” in the end of Step 1. The left-hand side of the second displayed equation should be “\(\hat{χF^x(φ)}(ξ)\)”.
Replace “\(V \times W\)” by “\(V \times (W \cup \{0\})\)”.
Page 118: in the first four equations the hats should be tildes.
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REFERENCES