B4.2 Functional Analysis 2 HT 2024: Corrections to lecture notes since start of term

I have corrected various small typos including

- p. 5 Typo in formula for A^{\perp}
- p.13 I = T corrected to I T
- p. 7 Typo in formula for $(ST)^*$ corrected
- p. 8 Lemma 1.5 Assumption changed to Hilbert space
- p. 17 corrected interval from $(0,\pi)$ to $(-\pi,\pi)$
- p.18 Theorem 2.7 Changed $f \in L^1_{loc}(-\pi,\pi)$ to $f \in L^1_{loc}(\mathbb{R})$
- \bullet p. 19 Proof of Riemann-Lebesgue Lemma: Corrected function being f in last sentence
- p. 22, Changed S to A in Lemma 3.2 and corrected line 5 and 6 of proof to "A is closed and nowhere dense" and " $x \in M$ "
- p 23 Last part of proof of Claim 1, added missing $\frac{1}{2}$ in formula for ε_0
- p.26 Proof of Claim 1 of OMT, removed an extra \hat{T} in first line.
- p 44 Added sentence on spectrum of inverse and corrected statement of Cor 5.8 to be just implication instead of equivalence.