

Errata of the book
“Set theory. Exploring Independence and Truth”
by Ralf Schindler

p.2 l.-6: delete the first “u” in “analoguous.”

p.4, l.8f.: the definition should read: “A set $B \subset A$ is called *dense in A* iff for all $a, b \in A$ with $a < b$ and $(a, b) \cap A \neq \emptyset$, then $(a, b) \cap B \neq \emptyset$. (Thanks to Milad Khodayi!) ”

p.5, line following the statement of Corollary 1.10: should read “Proof of Theorem 1.9,” not “Proof of Theorem 1.8.”

p.5 l.16: delete the last “that.”

paragraph at the bootom of p.6 and the top of p.7: delete the sentence “As \mathbb{Q} is dense [...] picked to be pairwise disjoint.”

p.8 l.-2: delete “[a, b] $_{\infty}$ is dense in $[a, b]$.” This is obvious nonsense. (Thanks to Alexander Paseau!)

p.18 l.4: Suppose that b does *not* have a maximum [...].

p.18 l.-7: delete “the.”

p.20 l.10: Shat *that* [...]

p.23 l.8: insert “is” before “inductive.”

p.27 l.9: replace “the R -least x_0 ” by “an R -least x_0 .” (Thanks to Philipp Schlicht!)

p.34 l.1: “my” should be “may.”

p.35 l.3f.: ... for cardinals κ, λ with $\lambda \leq \kappa$.

p.35 l.20: replace $\pi(\gamma)$ by $\pi((\gamma, \gamma))$. Similarly, l.25: replace $\pi(\aleph_0)$ by $\pi((\aleph_0, \aleph_0))$, l.27: relace $\pi(\aleph_{\alpha})$ by $\pi((\aleph_{\alpha}, \aleph_{\alpha}))$.

p.37 l.16: replace “is” by “in.”

p.38 l.7: replace “Poblem” by “Problem.”

p.41 l.-3: replace $A_{x\eta_n}$ by A_{η_n} .

p.43 l.1: replace “from” by ”form.”

p.43 l.2: replace κ^+ by κ .

p.44 l.3: replace $\gamma_{\alpha}^{\alpha'} \bar{S}$ by $\gamma_{\alpha}^{\alpha'} \in \bar{S}$.

p.44 l.-10: replace $g_i: [\mu_i]^{\text{cf}(\kappa)} \rightarrow \mu_i^+$ by $g_i: [\mu_i]^{\leq \text{cf}(\kappa)} \rightarrow \mu_i^+$.

p.44 l.-3: unfortunately, this is not the same g_i as in l.-10 of the same page.

p.45 l.2: delete “in.”

p.45 1.11 and 1.15: replace $\mathcal{P}(\kappa)$ by $[\kappa]^{\text{cf}(\kappa)}$; also lines 11, 14, 15, and 16: replace $Y \subset \kappa$ by $Y \in [\kappa]^{\text{cf}(\kappa)}$.

p.62, Problem 4.4: cf. p.35 1.3f.

p.97 footnote 1: replace “until p. 97” by “until p. 101.”

p.139 1.7 from b.: This should say “Also, if $(2^{\aleph_0})^{L[x]} = \omega_1^{L[x]} < 2^{\aleph_0}$, then by Lemmas 7.19 and 7.20 there is a *largest* $\Sigma_2^1(x)$ -set of reals which is smaller than 2^{\aleph_0} , namely $\omega_\omega \cap L[x]$.”

p.210 Definition 10.45: It has to be added that if E is a (κ, ν) -extender, then ν is called the *length of E* . The concept of the length of an extender gets used e.g. in the proof of Theorem 10.74. (Thanks to Bob Lubarsky!)

p.226: U^* refers to two different things on this page, to a tree, defined 1.9, and to a substructure of R_{i_2} , defined 1.17 (display). Also, τ refers to two different things on this page, to $\sigma' \upharpoonright V_{\nu_i}^{M_i}$, defined 1.9, and to a map from (the 2nd) U^* to $V_\kappa^{R_i}$, defined 1.18. There is also a sloppyness about Σ_{1+} formulae on this page in that the first parameter (free variable) of Φ got suppressed: e.g. in (10.46) by $\Phi(\sigma_i \upharpoonright V_{\nu_i}^{M_i})$ I really meant $\Phi(\sigma_i(\nu_i), \sigma_i \upharpoonright V_{\nu_i}^{M_i})$, i.e., $\Phi(\tau)$ in 1.7 should have been written as $\Phi(\tau(\nu_i), \tau)$ – with the understanding that $\tau(\nu_i) = \sup(\tau''\nu_i)$. (Thanks to Bob Lubarsky!)

p.239 Lemma 11.13: Make “ $\forall x \in U' \exists y \in U' x \in y$ ” part of the hypothesis. Without this additional hypothesis (a) and (c) are false: Take $U = 4$, $U' = 4 \cup \{\{0, 2\}\}$, and $\pi = \text{id}$. (Thanks to Toby Meadows!)

p.275 Problem 11.3: Cf. the correction to p.239 Lemma 11.13.