Here is a list of corrections to the published version of *A Guide to NIP Theories*. Those have all been incorporated in the online version available on my webpage: [http://www.normalesup.org/~simon/book.html](http://www.normalesup.org/~simon/book.html).

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- **Lemma 2.7**
  In the proof of left to right: \[ \{ \phi(x; c) : c \in I_0 \} \cup \{ \neg \phi(x; c) : c \in I_1 \} \] should be \[ \{ \phi(c; y) : c \in I_0 \} \cup \{ \neg \phi(c; y) : c \in I_1 \} \].

- **Chapter 2, References and related subjects, p.30:**
  Kaplan, Scanlon and Wagner show that NIP fields are Artin-Schreier closed, along with results about valued fields.

- **Observation 3.2**
  If \( \pi(x) \) is a definable set with at least two elements and is stably embedded, then one can choose the formula \( \psi(x_1, \ldots, x_n; z) \) in a way that it depends only on \( \phi(x_1, \ldots, x_n; y) \) and not on the parameters \( b \).

- **Remark 3.34**
  It follows from Proposition 3.32 that if \( I \) is ordered by a complete order and if there is a formula \( \theta(x, y) \in L(I) \) which orders \( I \), then \( I \) is stably embedded.

- **Lemma 5.17**
  The end of the proof should read:
  By Ramsey, we may find an \( Aa' \)-indiscernible sequence \( (b'_i : i < \omega) \) realizing the EM-type of \( (b_i : i < \omega) \) over \( Aa' \). Then \( a' \models \pi(x; b'_i) \) for every \( i < \omega \). Let \( f \in Aut(U/A) \) send \( (b'_i : i < \omega) \) to \( (b_i : i < \omega) \) and set \( a = f(a') \). Then \( a \models \pi \) and the sequence \( I \) is indiscernible over \( Aa \).

- **Definition 6.8**
  The set \( X_0 \) should be a multiset, i.e. we allow repetitions.

- **Corollary 6.13**
  The centered equation should read
  \[ \left| \mu(S) - \frac{|\{i : x_i \in S\}|}{q} \right| \leq \epsilon. \]

- **Section 7.1, Borel measures.**
  They are some details missing in the proof of construction of the regular Borel measure extending a Keisler measure. Here is a more complete argument.

  Let \( \mu \in M_\sigma(A) \) be a Keisler measure. It assigns a measure to every clopen set of the space \( S_x(A) \). We show how to extend that measure to a \( \sigma \)-additive Borel probability measure. First, if \( O \subseteq S_x(A) \) is open, we define \( \mu(O) = \sup \{ \mu(D) : D \subseteq O, D \text{ clopen} \} \). Similarly, the measure of a closed set \( F \) is the infimum of the measures of clopen sets which contain it. If \( F \subseteq O \) are respectively closed and open, then there is a definable set between them. This implies that if \( X \) is either closed or open, we have

  \[ \text{(Reg)} \quad \sup \{ \mu(F) : F \subseteq X, F \text{ closed} \} = \inf \{ \mu(O) : X \subseteq O, O \text{ open} \}. \]
It is not hard to see that that $\mu$ is subadditive on open sets and that $\mu(O \setminus F) = \mu(O) - \mu(F)$ for $F$ closed inside the open set $O$.

The next step is to show that the set of subsets $X \subseteq S_x(A)$ satisfying (Reg) is closed under complement and countable union. Complement is clear. For countable union: let $X = \bigcup_{i<\omega} X_i$ and fix $\epsilon > 0$. For each $i < \omega$, take $F_i \subseteq X_i \subseteq O_i$ with $\mu(O_i) - \mu(F_i) \leq 2^{-i}$. Let $O = \bigcup_{i<\omega} O_i$. Note that $\mu(O) = \lim_n \mu(\bigcup_{i<n} O_i)$, because by compactness any clopen set inside $O$ is already inside some $\bigcup_{i<n} O_i$. Then we can find some finite $N$ such that $\mu(O) - \mu(\bigcup_{i<N} O_i) \leq \epsilon$. Let $F = \bigcup_{i<N} F_i$. Then we have $F \subseteq X \subseteq O$ and $\mu(O) - \mu(F) = \mu(\bigcup_{i<N} O_i \setminus F) \leq \mu(\bigcup_{i<N} O_i \setminus F) + \epsilon \leq \epsilon + \sum_{i<N} \mu(O_i) - \mu(F_i) \leq 3\epsilon$.

It follows that every Borel subset of $S_x(A)$ satisfies (Reg). We can therefore define $\mu$ on all such sets by $\mu(X) = \sup\{\mu(F) : F \subseteq X, F \text{ closed} \} = \inf\{\mu(O) : X \subseteq O, O \text{ open} \}$. It is easy to check that this defines a $\sigma$-additive measure on $S_x(A)$. Property (Reg) is referred to as regularity of the measure $\mu$.

- Proposition 7.10, last paragraph of the proof.

Now take points $(a_i : i < n)$ in $U$ such that $a_i \models p_i$. Set $\nu = \frac{1}{n} \sum_{i<n} \text{tp}(a_i/U)$. Let $b \in U$ and let $i < n$ be such that $\models \psi_i(b)$. Then we have $\models \theta_i^0(x) \rightarrow (x;b) \rightarrow \theta_i^1(x)$ and $\mu(\theta_i^1(x)) - \mu(\theta_i^0(x)) \leq \epsilon$. Thus $|\mu(\phi(x;b) \cap X) - \mu(\theta_i^0(x) \cap X)| \leq \epsilon$ and similarly $|\lambda'(\phi(x;b) \cap X) - \lambda'(\theta_i^0(x) \cap X)| \leq 3\epsilon$. Finally, since $\lambda'(\theta_i^0(x) \cap X)$ is within $\epsilon$ of $\mu(\theta_i^0(x) \cap X)$, we have that $\lambda'(\phi(x;b) \cap X)$ is within $5\epsilon$ of $\mu(\phi(x;b) \cap X)$.

- Definition 7.23

Let $\mu(x)$ be a global $M$-invariant measure. We say that $\mu$ is fin (frequency interpretation measure) if for any formula $\phi(x;y) \in L$, there is a family $(\theta_n(x_1,\ldots,x_n) : n < \omega)$ of formulas in $L(M)$ such that:

- $\lim \mu(\phi(x_1,\ldots,x_n)) = 1$;
- for any $\epsilon > 0$, there exists a family $(\theta_n(x_1,\ldots,x_n) : n < \omega)$ such that any $b \in U$, $\text{Av}(a_1,\ldots,a_n;\phi(x;b))$ is within $\epsilon$ of $\mu(\phi(x;b))$.

- Theorem 7.29

(ii) for any formula $\phi(x;y) \in L$ and $\epsilon > 0$, there are $a_1,\ldots,a_n \in M$ such that for any $b \in U$, $\text{Av}(a_1,\ldots,a_n;\phi(x;b))$ is within $\epsilon$ of $\mu(\phi(x;b))$.

- Proposition 7.30, end of the proof.

Fix $\epsilon > 0$. By Proposition 7.27 there are $a_1,\ldots,a_n \in N$ such that for all $b' \in U$, $\text{Av}(a_1,\ldots,a_n;\phi(x;b'))$ is within $\epsilon$ of $\mu(\phi(x;b))$ and also $\text{Av}(a_1,\ldots,a_n;X)$ is within $\epsilon$ of $\mu(X)$. Then $\mu_X(\phi(x,y))$ is within $\epsilon$ of $\text{Av}(a_1,\ldots,a_n;X)$ which by definition of $X$ is equal to $\text{Av}(a_1,\ldots,a_n;\phi(x;b))$, which is within $\epsilon$ of $\mu(\phi(x,y))$.

As this holds for all $\epsilon > 0$, the result follows.

- Proposition 8.21

The reduction to countable $L$ is not so clear. One can argue using facts from the paper “Definably amenable NIP groups” with A. Chernikov: if $p$ is $f$-generic in some language $L$, then its reduct to any sublanguage is also $f$-generic because it has bounded orbit. The reader may simply prefer to assume that $L$ is countable in this proposition.

- Section 8.4 Compact domination. The paragraph before Lemma 8.39 should be:
Fix a countable elementary submodel $U$ of the set theoretic universe containing $L, T, M, G, \mu$ etc. If $a \in U$ is a finite tuple, a point $b \in G(U)$ is said to be random over $M a$ if there does not exist some Borel set $B \subseteq S_{xy}(M)$ coded in $U$ such that $B(a, b)$ holds and $\mu(B(a, y)) = 0$. Note that such a $b$ always exists because we have to avoid countably many Borel sets of measure 0.