Ondřej Ježil, Pseudofinite structures and limits

ERRATA

p. 10 The first paragraph on the page (cont. of **Definition 1.4.1**) is missing a quantification for the parameter t. It should read:

"We define $\mathcal{T}_{rud}$ to be the set of all (T, ℓ) of depth at most $g_n^{1/t}$, for some nonstandard $t \in \mathcal{M}$, and F_{rud} to be the set of all functions computed by some $(T, \ell) \in \mathcal{T}_{rud}$. For brevity, we will leave the labeling of the trees out of the notation so a tree in $\mathcal{T}_{rud}$ can be denoted just by T."

p. 12, proof of Theorem 2.1.1. The first sentence in the proof is poorly formulated. Let us restate it as follows.

" Any two trees T_α and T_β computing potential witnesses α, β of the formula $E(x, y)$ on some subset of Ω can be combined then into one tree that outputs an edge on the same subset of Ω, so we can just analyze the case where the witnesses are computed by the same tree."

p. 16, Example 2.3.2. The number of edges should be $\left\lceil \frac{k(k-1)}{2\log k} \right\rceil$.

p. 17, Theorem 2.3.4. The statement should read:

" Let F be any vertex family, $\mathcal{G}_k$ a wide sequence and let $\varphi_0(\overline{x})$ be an open $\{E\}$-formula such that

$$\lim_{k\to\infty} \Pr_{G\in\mathcal{G}_k}[G \models (\forall \overline{x})\varphi_0(\overline{x})] = 1.$$

Then $\lim_F \mathcal{G}_n [\![(\forall \overline{x})\varphi_0(\overline{x})]\!] = \mathbf{1}$."

p. 18, Example 2.3.7. The number of edges should be $\left\lceil \frac{k(k-1)}{2\log k} \right\rceil$.

p. 19, Theorem 2.4.2. The explanation of the notation ψ^b is missing. For an $\{E\}$-formula ψ we have

$$\psi^b := \begin{cases} \psi & b = 1 \\ \neg\psi & b = 0. \end{cases}$$

p. 20, Corollary 2.4.3. "... we have that $[\![(\forall \overline{y})(\exists \overline{x})\varphi(\overline{x}, \overline{y})]\!] = \mathbf{1}$."

p. 28, Conjecture 3.2.2. Let us stress that the parameter m is an element of $\mathcal{M}$.

p. 32, proof of Corollary 4.1.7. The inequalities contain a typo and a numerical error, here is the corrected version. The rest of the proof is unaffected.

$$\Pr_{G\in\mathcal{G}_{n-c}}[T \text{ fails}] \geq \prod_{i=0}^{n^{1/t}} \left(1 - \frac{2}{n - 2i - c - 2}\right) \tag{4.26}$$

$$\geq \left(1 - \frac{2(n^t + 1)}{n - 2n^{1/t} - c - 2}\right) \tag{4.27}$$

p. 32, proof of Theorem 4.1.8. There is a duplication error and the proof should be read from the beginning of page **33**.