Typos to “Computing Polynomial Functions of Correlated Sources: Inner Bounds”

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I. TYPOS IN THE PAPER

1) Lemma IV.1] was stated incorrectly. The corrected statement reads:

**Lemma I.1.** Let \( \tilde{X}_1^n, \tilde{X}_2^n, \ldots, \tilde{X}_l^n, Y^n \) \( \sim \) \( q \). For any \( \epsilon > 0 \) and positive integer \( n \), choose a sequence \( \tilde{X}_j^n \) \( (1 \leq j \leq l) \) randomly from \( T_\epsilon(n, X_j) \) based on a uniform distribution. If \( y \in Y^n \) is an \( \epsilon \)-typical sequence with respect to \( Y \), then

\[
\Pr \{ (\tilde{X}_1^n, \tilde{X}_2^n, \ldots, \tilde{X}_l^n, Y^n) \in T_\epsilon | Y^n = y \} \leq 2^{-n[\sum_{j=1}^l I(X_j; Y, X_1, X_2, \ldots, X_{j-1}) - 3\epsilon]}.
\]

**Proof:** Let \( F_j \) be the event \( \{ (\tilde{X}_1^n, \tilde{X}_2^n, \ldots, \tilde{X}_j^n, Y^n) \in T_\epsilon \}, 1 \leq j \leq l \), and \( F_0 = \emptyset \). We have

\[
\Pr \{ (\tilde{X}_1^n, \tilde{X}_2^n, \ldots, \tilde{X}_l^n, Y^n) \in T_\epsilon | Y^n = y \} = \prod_{j=1}^l \Pr \{ F_j | Y^n = y, F_{j-1} \}
\]

\[
\leq \prod_{j=1}^l 2^{-n[I(X_j; Y, X_1, X_2, \ldots, X_{j-1}) - 3\epsilon]}
\]

\[
= 2^{-n[\sum_{j=1}^l I(X_j; Y, X_1, X_2, \ldots, X_{j-1}) - 3\epsilon]},
\]

since \( \tilde{X}_1^n, \tilde{X}_2^n, \ldots, \tilde{X}_l^n, y \) are generated independent. \( \blacksquare \)

2) There is an index typo in Lemma IV.2. The corrected statement reads:

**Lemma I.2.** If \( (Y_1, V_1, Y_2, V_2, \ldots, Y_s, V_s) \sim q \), and

\[
q(y_1, v_1, y_2, v_2, \ldots, y_s, v_s) = q(y_1, y_2, \ldots, y_s) \prod_{i=1}^s q(v_i | y_i),
\]

then, \( \forall J = \{ j_1, j_2, \ldots, j_J \} \subseteq \{ 1, 2, \ldots, s \}, \)

\[
I(Y_J; V_J | V_{Jc}) = \sum_{i=1}^{[J]} I(Y_{j_i}; V_{j_i}) - I(V_{j_1}; V_{j_2}, V_{j_3}, \ldots, V_{j_{[J]} - 1}).
\]

REFERENCES