Erratum

A Constraint Programming Approach to Extract the Maximum Number of Non-Overlapping Test Forms

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The publisher regrets the following errors which appeared in the article "A Constraint Programming Approach to Extract the Maximum Number of Non-Overlapping Test Forms" by Dmitry I. Belov and Ronald D. Armstrong in Computational Optimization and Applications, volume 33, numbers 2/3, pages 319–332.

On page 323 in Section 5, Algorithm 1 (below) was inadvertently omitted and should have appeared above the paragraph which begins with the words "Since on Step 6…."

Algorithm 1:

Input: collection C of finite sets

Output: hitting set B for the collection

Step 1: set $B := \varnothing$

Step 2: calculate frequency of elements $f(e) := \sum_{s \in C} \left| \{e\} \cap s \right|, \quad e \in E$

Step 3: select $e \in E$ having maximum $f(e)$

Step 4: if $f(e) = 1$ then (C is a set packing) extend B by

    picking up a single element from each set $s \in C$ and

    go to step 8

Step 5: set $B := B \cup \{e\}$

Step 6: for all s such that $e \in s$ remove s from C and decrement

    frequency of elements from s

Step 7: if $C \neq \varnothing$ then go to step 3

Step 8: return B

Also, on page 326 in Algorithm 3, the second 'C tilde' in the "Input" should actually be a 'C'. Algorithm 3 should have appeared on page 325 at the gap between lines "...for the MSP." and "To find an initial lower bound...". The correct Algorithm 3 can be found below:

Algorithm 3:

Input: subcollection $\tilde{C} \subseteq C$

Output: set packing $Q \subseteq \tilde{C}$

Step 1: set $Q := \varnothing$

• Step 2: choose a set $s \in \tilde{C}$ with maximum $|N(s)|$

Step 3: set $Q := Q \cup \{s\}$ and $\tilde{C} := \tilde{C} \cap N(s)$

• Step 4: if $\tilde{C} \neq \varnothing$ go to step 2

Step 5: return Q

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