BIT Numer Math (2018) 58:577–578
https://doi.org/10.1007/s10543-018-0708-y

CORRECTION

Correction to: Solution methods for linear discrete ill-posed problems for color image restoration

A. H. Bentbib[1] · M. El Guide[1,2] · K. Jbilou[3] · E. Onunwor[4,5] · L. Reichel[4]

Published online: 4 May 2018

Correction to: Bit Numer Math https://doi.org/10.1007/s10543-018-0706-0

The original version of this article unfortunately contained a mistake. The presentation of Algorithm 4 was incorrect in this article. The corrected Algorithm 4 is given below.

The original article can be found online at https://doi.org/10.1007/s10543-018-0706-0.

✉ L. Reichel
reichel@math.kent.edu

A. H. Bentbib
a.bentbib@uca.ac.ma

M. El Guide
mohamed.elguide@um6p.ma; mohamed.elguide@edu.uca.ac.ma

K. Jbilou
jbilou@univ-littoral.fr

E. Onunwor
eonunwor@starkstate.edu

1 Laboratoire de Mathématiques Appliquées et Informatique, Faculté des Sciences et Techniques-Gueliz, Marrakesh, Morocco

2 Université Mohammed VI Polytechnique, FAB-LAB, UM6P, Bengeurir, Morocco

3 Université du Littoral Côte d'Opale, L.M.P.A, ULCO, 50 rue F. Buisson, BP699, 62228 Calais-Cedex, France

4 Department of Mathematical Sciences, Kent State University, Kent, OH 44242, USA

5 Department of Mathematics, Stark State College, 6200 Frank Ave. NW, North Canton, OH 44720, USA

Algorithm 4 "Trivial" method.

Input: $A, k, b^{(1)}, b^{(2)}, \ldots, b^{(k)}, \varepsilon^{(1)}, \varepsilon^{(2)}, \ldots, \varepsilon^{(k)}, \eta \geq 1$.

1. For $i = 1, 2, \ldots, k$

(a) Let $u_1 := b^{(i)}/\|b^{(i)}\|_2$.

(b) Compute Golub–Kahan bidiagonalization $AV_\ell = U_{\ell+1}\bar{C}_\ell, \quad A^T U_\ell = V_\ell C_\ell^T$

(c) Compute $\min\limits_{y_\mu \in \mathbb{R}^\ell} \{\|\bar{C}_\ell y_\mu - U_{\ell+1}^T b^{(i)}\|_2^2 + \mu \|y_\mu\|_2^2\}$

(d) If $\|\bar{C}_\ell y_\mu - U_{\ell+1}^T b^{(i)}\|_2 > \eta \varepsilon^{(i)}$

i. $\ell := \ell + 1$

ii. Return to step (b).

(e) Compute $x_\mu^{(i)} := V_\ell y_\mu$

The original article has been corrected.

The publisher sincerely apologizes for this mistake.