



## Corrigendum to “Arterial blood pressure feature estimation using photoplethysmography” [Comput. Biol. Med. 102 (2018) 104–111]



Armin Soltan Zadi<sup>a,\*</sup>, Raichel Alex<sup>a</sup>, Rong Zhang<sup>b</sup>, Donald E. Watenpaugh<sup>c</sup>, Khosrow Behbehani<sup>a</sup>

<sup>a</sup> The University of Texas at Arlington, Arlington, TX, USA

<sup>b</sup> The University of Texas Southwestern Medical Center, Dallas, TX, USA

<sup>c</sup> Sleep Consultants Inc., Fort Worth, TX, USA

The authors regret, after the publication of the above-referenced paper, an inadvertent error in the computation of the initial conditions that were used with Equation (2) of the paper was discovered. The changes resulting from correcting the initial conditions are described below.

1) In the Abstract on page 104 the following sentence:

*The level of error in the estimates, as measured by the root mean square of the model residuals, was less than 5 mmHg during normal breathing and less than 8 mmHg during the breath-hold maneuver.*

is corrected as:

*The level of error in the modeling and prediction estimates during normal breathing and breath-hold maneuvers, as measured by the root mean*

*square of the residuals, were less than 5 mmHg and 11 mm Hg, respectively.*

2) The entries for Tables 3 and 4 on page 108 are corrected as follows.

Table 4: rMSE of prediction errors of models identified for each BH interval and applied to estimating BP features for other BH intervals (mmHg)

	1 <sup>st</sup> BH	2 <sup>nd</sup> BH	3 <sup>rd</sup> BH	4 <sup>th</sup> BH	5 <sup>th</sup> BH
Systolic	10.521	8.931	9.30	10.570	9.527
Diastolic	6.708	5.118	6.863	7.036	7.904
MAP	5.897	6.8653	7.125	7.489	6.565

Table 3: rMSE of prediction errors of models identified for each NP interval and applied to estimating BP features for other NB intervals (mmHg)

	1 <sup>st</sup> NB	2 <sup>nd</sup> NB	3 <sup>rd</sup> NB	4 <sup>th</sup> NB	5 <sup>th</sup> NB	6 <sup>th</sup> NB
Systolic	8.859	9.397	7.205	8.172	8.545	9.938
Diastolic	7.761	6.650	5.412	6.240	7.690	9.458
MAP	5.615	6.758	6.897	7.012	7.878	7.782

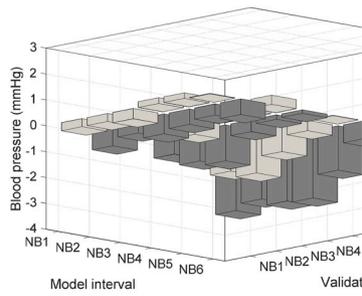
DOI of original article: <https://doi.org/10.1016/j.combiomed.2018.09.013>

\* Corresponding author.

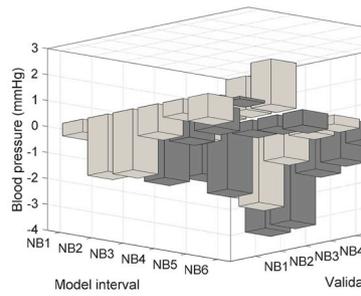
E-mail address: [armin.soltanzadi@uta.edu](mailto:armin.soltanzadi@uta.edu) (A. Soltan Zadi).

<https://doi.org/10.1016/j.combiomed.2019.03.010>

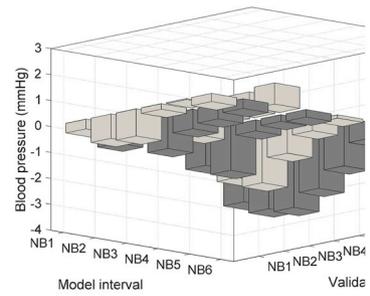
3) Fig. 4 on page 108 is corrected as follows:



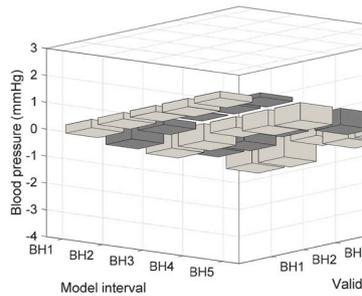
(a) Mean of errors for DBP in NB intervals



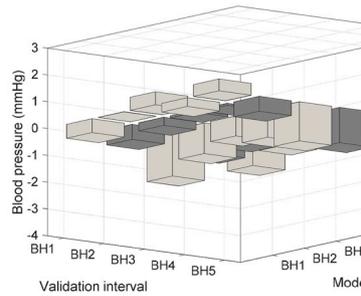
(b) Mean of errors for SBP in NB intervals



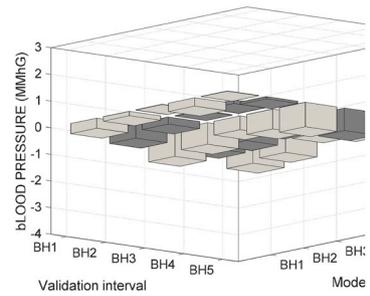
(c) Mean of errors for MAP in NB intervals



(d) Mean of errors for DBP in BH intervals



(e) Mean of errors for SBP in BH intervals



(f) Mean of errors for MAP in BH intervals

Fig. 4- Mean of errors for DBP, SBP, and MAP in both NB and BH interval. Each model is evaluated by all other congruent models.

4) Fig. 5 on page 109 is corrected as:

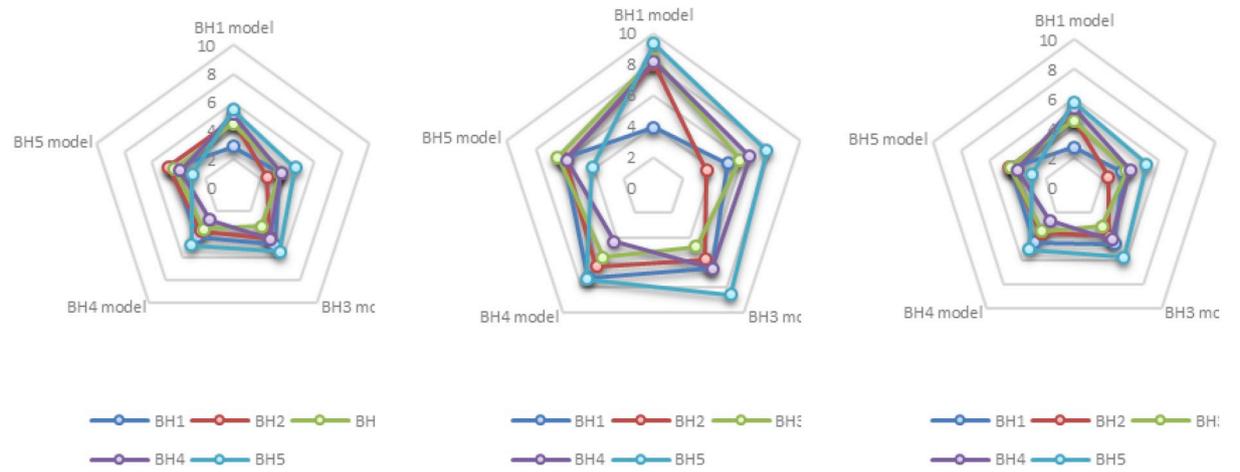
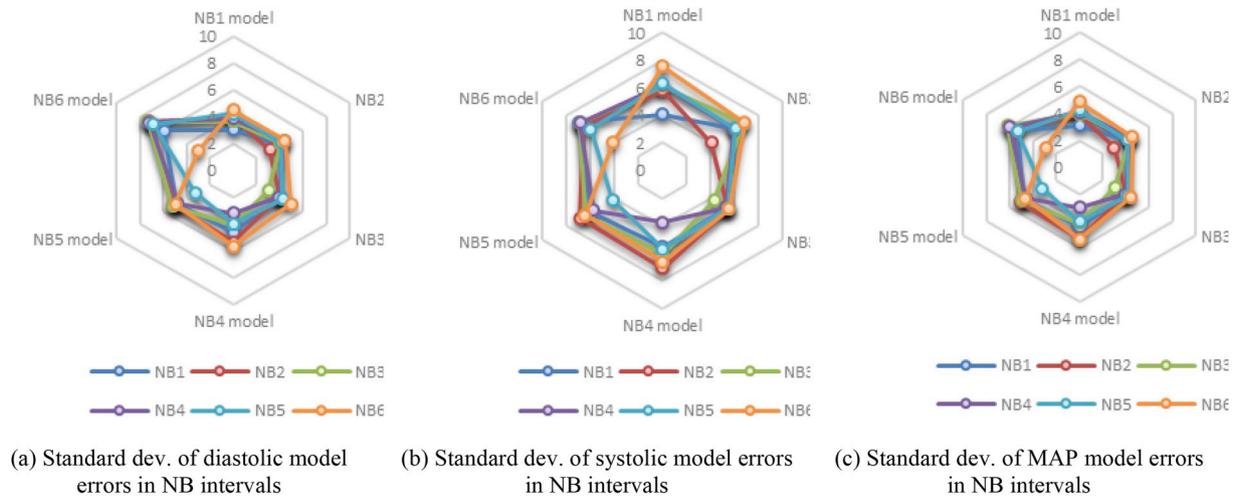


Fig. 5- Standard deviation of errors for DBP, SBP and MAP in both NB and BH intervals. Each model is evaluated by all other congruent models.

5) On page 109 in the last paragraph of the left column, the second and third sentences in the paragraph:

*Indeed, comparing the rMSE values in Tables 1 and 2 with those in Tables 3 and 4 shows that rMSE values have a max mean of approximately 8 mmHg. Therefore, if rMSE is used to gauge the level of the error, for both model errors and prediction errors, an overall error of less than 8 mmHg can be expected.*

are modifies as:

*Indeed, comparing the rMSE values in Tables 1 and 2 with those in Tables 3 and 4 shows that rMSE values have a max mean of approximately 11 mmHg. Therefore, if rMSE is used to gauge the level of the error, for both model errors and prediction errors, an overall error of less than 11 mmHg can be expected.*

The authors would like to apologise for any inconvenience caused.