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# Author Correction: Validation of the Sleep Regularity Index in Older Adults and Associations with Cardiometabolic Risk

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Correction to: *Scientific Reports* <https://doi.org/10.1038/s41598-018-32402-5>, published online 21 September 2018

The Article contains an error in Equation 3.

$$\frac{1440}{2\pi} \arctan 2 \left( \sum_{j=1}^M \sum_{i=1}^M s_{i,j} \sin \frac{2\pi t_i}{1440} + \sum_{j=1}^M \sum_{i=1}^M s_{i,j} \cos \frac{2\pi t_i}{1440} \right)$$

should read:

$$\frac{1440}{2\pi} \arctan 2 \left( \sum_{j=1}^M \sum_{i=1}^M s_{i,j} \sin \frac{2\pi t_i}{1440}, \sum_{j=1}^M \sum_{i=1}^M s_{i,j} \cos \frac{2\pi t_i}{1440} \right)$$

Additionally, the Article contains a typographical error in the Methods section under subheading ‘Calculation of Sleep Regularity Index (SRI) and other sleep indices’ where,

“Sleep midpoint, our index of sleep timing, was calculated as a mean of circular quantities (appropriate for time of day) using the following equation (3), where  $t_j$  denotes time of day in minutes at epoch  $j$ .”

should read:

“Sleep midpoint, our index of sleep timing, was calculated as a mean of circular quantities (appropriate for time of day) using the following equation (3), where  $t_j$  denotes time of day in minutes at epoch  $j$ , and  $\arctan 2(x, y)$  denotes the angle between  $(x, y)$  and the positive  $x$ -axis.”



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