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Charting nearby dust clouds using *Gaia* data only *(Corrigendum)*

R. H. Leike[1,2] and T. A. Enßlin[1,2]

[1] Max Planck Institute for Astrophysics, Karl-Schwarzschildstraße 1, 85748 Garching, Germany
e-mail: reimar@mpa-garching.mpg.de
[2] Ludwig-Maximilians-Universität, Geschwister-Scholl Platz 1, 80539 Munich, Germany

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In Table 1 we presented a comparison of different dust inference methods and their applications. The following corrections are in order for that table:

– In the row labeled "parallax uncertainty," all methods except Green et al. (2018) and Sale & Magorrian (2018) take the parallax uncertainty into account during data selection in addition to what is stated in the table. Hereby the term "parallax" may refer to both astrometric parallaxes, that is to say distance estimates derived from the angular displacement of stars due to the observers displacement, as well as photometric parallaxes, that is distances derived from spectra using stellar models.
– In the column labeled "Kh et al. (2018b)," we misclassified the method of Rezaei Kh et al. (2018) as a 2D method. The method takes correlations in three dimensions into account similarly to Lallement et al. (2018), Sale & Magorrian (2018), and our own method. Furthermore, in the row "max voxel resolution" we stated the voxel resolution to be 200 pc, but it should be noted that the grid of this method is irregular and the voxel resolution is on average higher in angular direction. Thus 200 pc is the minimum voxel resolution for this method.

A corrected table is found below.

In our main text, in the second paragraph of the introduction we cite "Kh et al 2017," which mistakenly refers to an IAU proceeding. The correct reference is Rezaei Kh et al. (2017).

References

Green, G. M., Schlafly, E. F., Finkbeiner, D., et al. 2018, MNRAS, 478, 651
Lallement, R., Capitanio, L., Ruiz-Dern, L., et al. 2018, A&A, 616, A132
Rezaei Kh, S., Bailer-Jones, C., Hanson, R., & Fouesneau, M. 2017, A&A, 598, A125
Rezaei Kh, S., Bailer-Jones, C. A., Hogg, D. W., & Schultheis, M. 2018, A&A, 618, A168
Sale, S., & Magorrian, J. 2018, MNRAS, 481, 494

Table 1. Comparison of the different dust inference methods with the one performed in this paper.

	This paper	Sale & Magorrian (2018)	Rezaei Kh et al. (2018)	Lallement et al. (2018)	Green et al. (2018)
Parallax uncertainty	Smoothing and data selection	Marginalization by sampling	Data selection	Data selection	Proper uncertainty handling
Max distance	$300\sqrt{3}$ pc	5 kpc	6 kpc	$\approx 2\sqrt{2}$ kpc	3 kpc
Max voxel resolution	2.3 pc	Not applicable	200 pc radial	5 pc	16.4 pc/0.063 pc
Number of datapoints	3.7 million	6 349	21 000	71 357	806 million
Power spectrum inference	Yes	No	No	No	No
Correlations	3D	3D	3D	3D	1D correlations only
Positiveness	Yes	Only of reddening	No	Yes	Yes
Statistical method	Variational Bayes	Expectation propagation	Analytic	Maximum posterior	Hamiltonian Monte Carlo
Data sets	*Gaia* DR2	Synthetic *Gaia* data	APOGEE	*Gaia* DR1 + APOGEE + 2MASS	Pan-STARRS + 2MASS

Notes. The first row indicates how the photo- or astrometric parallax uncertainty of the stars was treated. Hereby smoothing refers to weighting a voxel in the line of sight by the survival function of the star radial distance. The distance of the furthest point in the reconstruction is given in the second row. The dimensions of the smallest voxel are given in the third row. For the reconstruction of Sale & Magorrian (2018) the concept of voxel resolution is not readily applicable; Sale & Magorrian (2018) use 140 inducing points spanning a region for which one could evaluate the posterior mean at any point. The resolution for Green et al. (2018) and Rezaei Kh et al. (2018) is different in radial/angular direction, we report only radial resolution for Rezaei Kh et al. (2018) and both for Green et al. (2018). The fourth row provides the number of used data points. The fifth row indicates whether the power spectrum is inferred. The sixth row states which kind of correlations are assumed for the reconstruction. Whether positivity of dust density is enforced can be read in the seventh row. The second to last row states the method, with which the posterior summary statistics was calculated from the unnormalized log posterior. In the last row the data sets used for the reconstruction are listed.

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