

Errata

In the article “Learning graphs from data: A signal representation perspective” [1] by X. Dong, D. Thanou, M. Rabbat, and P. Frossard in the May 2019 issue of *IEEE Signal Processing Magazine*, several statements were imprecise.

On page 47 of the article, in the paragraph below Eq. (4), the correct statements should be:

- *The first term can be interpreted as the negative local log-likelihood of β_1 ;*
- *Finally, a connection between a pair of vertices v_i and v_j is established if either of β_{ij} and β_{ji} is nonzero, or both (notice that it should not be interpreted that β_{ij} and β_{ji} are directly related to the corresponding entries in the precision matrix Θ). This neighborhood selection approach using the Lasso is intuitive with certain theoretical guarantees [14]; however, it does not involve solving an optimization problem whose objective is an explicit function of Θ .*

On page 48 of the article:

- In Line 1 of the left column, it should be pointed out that the sample covariance in Eq. (5) is typically computed as $\hat{\Sigma} = \frac{1}{M} \mathbf{X}\mathbf{X}^T$;
- Eq. (6) should be:

$$\max_{\beta_1} \sum_{m=1}^M \log p_{\beta_1}(\mathbf{X}_{1m} | \mathbf{X}_{\setminus 1m}) - \lambda \|\beta_1\|_1. \quad (1)$$

In addition, reference [20] in the article should have been:

- M. Yuan and Y. Lin, “Model selection and estimation in the Gaussian graphical model,” *Biometrika*, vol. 94, no. 1, pp. 19-35, 2007.

We regret these errors and apologize for any confusion they may have caused.

REFERENCES

- [1] X. Dong, D. Thanou, M. Rabbat, and P. Frossard, “Learning graphs from data: A signal representation perspective,” *IEEE Signal Processing Magazine*, vol. 36, no. 3, pp. 44–63, 2019.