

# Correction

This is a correction to [Blei et al. \(2017\)](#).

- In Algorithm 1, the CAVI algorithm, the ELBO should be

$$\text{ELBO}(q) = \mathbb{E} [\log p(\mathbf{z}, \mathbf{x})] - \mathbb{E} [\log q(\mathbf{z})].$$

- In Algorithm 2, CAVI for a Gaussian mixture, the variational distribution of the cluster assignments is  $q(c_i; \varphi_i)$ .

(Thanks to Mohammad Rasool Izadi for pointing out these corrections.)

## References

Blei, D., Kucukelbir, A., and McAuliffe, J. (2017). Variational inference: A review for statisticians. *Journal of American Statistical Association*, 112(518):859–877.