Correction

This is a correction to Blei et al. (2017).

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

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

(Thanks to Mohammad Rasool Izadi.)

- 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.)

- Equation 53 should be

\[ \lambda_t = \lambda_{t-1} + \epsilon_t g(\lambda_{t-1}) \cdot \]

(Thanks to Pedro Ferreira.)

- On page 866, we discuss the class of models where each conditional is in the exponential family, and we list several examples. We incorrectly included Poisson regression in this list; it is not in the class of models. (Thanks to Andrew Nguyen.)

References