Hi Tony, do you know what these mean?

\[ \int \ln p(X, Z) \prod_{i \neq j} q_i dZ_i \]  \hspace{1cm} (1)

and similarly

\[ q_j(Z_j) = \int p(Z) \left[ \sum_{i=1}^{M} \ln q_i(Z_i) \right] dZ_i + \text{const} \]  \hspace{1cm} (2)

Is the first one equivalent to:

\[ \cdots \int \ln p(X, Z_i) q_i dZ_1 \cdots dZ_{j-1} dZ_{j+1} \cdots dZ_M \]  \hspace{1cm} (3)

Or:

\[ \prod_{i \neq j} \int \ln p(X, Z) q_i dZ_i \]  \hspace{1cm} (4)

Actually I really don’t know what to make of it.

Thanks, Nate