Errata for

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The second matrix transposes applied to the first two expressions in (15), namely $\mathbf{H}^T\mathbf{\Delta}\mathbf{H}^T$ and $(\mathbf{\Upsilon}^T\mathbf{H}+\mathbf{\Upsilon}^T\mathbf{F}+X_0)^T\mathbf{\Delta}(\mathbf{\Upsilon}^T\mathbf{H}+\mathbf{\Upsilon}^T\mathbf{F}+X_0)^T$, are erroneous. The correct equation is:

$$\begin{aligned} J =& \mathrm{E}\Big[\mathbf{H}^T\mathbf{\Delta}\mathbf{H}+ \\ & (\mathbf{\Upsilon}^T\mathbf{H}+\mathbf{\Upsilon}^T\mathbf{F}+X_0)^T\mathbf{\Delta}(\mathbf{\Upsilon}^T\mathbf{H}+\mathbf{\Upsilon}^T\mathbf{F}+X_0)\Big]+ \\ & \lambda \mathrm{Var}\left[(\mathbf{\Upsilon}X_0+\mathbf{\Psi}\mathbf{H}+\mathbf{\Psi}\mathbf{F})^T\mathbf{R}\right] \end{aligned} \tag{15}$$