$$\mathbf{z}^{(k)} = \mathbf{E}\mathbf{E}^T \operatorname{prox}_{\frac{\lambda}{\gamma}\|\cdot\|_*}\left(\left(\tilde{\mathbf{z}}^{(k-1)}\right)\right)$$

$$\boldsymbol{\alpha}^k = \mathbf{E}^T\mathbf{z}^k$$

$$\tilde{\mathbf{z}}^{(k-1)} = \mathbf{z}^{(k-1)} + \frac{\mathbf{E}}{\gamma}\boldsymbol{\Phi}^*(\mathbf{y} - \boldsymbol{\Phi}\mathbf{E}^T\mathbf{z}^{(k-1)})$$

$$\alpha_k = \tilde{y}_k \sum_j \frac{1}{w_j^j}\left(1 - \frac{\lambda}{\sqrt{\sum_{j' \in \mathcal{N}(j)} w_{j'}^{(j)} |\tilde{y}_{k'}|^2}}\right)^+$$