Corrections to "Block-Adaptive Kernel-Based CDMA Multiuser Detection"

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The likelihood (14) should be

$$p(\mathbf{t}|\mathbf{w},\boldsymbol{\alpha}) = \prod_{l=1}^{K} \left(f(y(\mathbf{x}_l))\right)^{t_l+1} \left(1 - f(y(\mathbf{x}_l))\right)^{1-t_l}$$

to take into account the nature of target $t_l \in \{\pm 1\}$. Accordingly, the cost function (17) becomes

$$J(\mathbf{w}|\mathbf{t},\boldsymbol{\alpha}) = \sum_{l=1}^{K} \{ \frac{\alpha_l w_l^2}{2} - (t_l + 1)\log(f(y(\mathbf{x}_l))) - (1 - t_l)\log(1 - f(y(\mathbf{x}_l))) \},$$

the gradient of J with respect to $\mathbf{w}$ in (18) is modified to

$$\nabla J = \mathbf{A}\mathbf{w} + \mathbf{\Phi}^T \left(2\mathbf{f} - (\mathbf{t} + \mathbf{1}_K)\right)$$

with $\mathbf{1}_K = [1\ 1 \cdots 1]^T$, and the diagonal matrix $\mathbf{B}$ in the Hessian (19) is modified to

$$\mathbf{B} = \mathrm{diag}\{2f(y(\mathbf{x}_1))(1 - f(y(\mathbf{x}_1))), \cdots, 2f(y(\mathbf{x}_K))(1 - f(y(\mathbf{x}_K)))\}.$$

All the results and conclusions remain unchanged.