

Comments and Corrections

Correction to “DC-DistADMM: ADMM Algorithm for Constrained Optimization Over Directed Graphs”

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We emphasize that the dimensions of the equality and inequality constraints in [1] do not necessarily need to be the same. In particular, the developed method and the presented analysis works for $m_1 \neq m_2$. Thus, footnote 1 on page number 5368 in Section II-B, “Problem Formulation” is not needed.

Further, in [1], the definition of matrices A_i and vectors b_i after equation (2), should be for all $i = 1, 2, \dots, n$,

$$A_i := \begin{bmatrix} C_i & 0 \\ D_i & I \end{bmatrix} \in \mathbb{R}^{(m_1+m_2) \times (p+m_2)} \text{ and}$$

$$b_i := \begin{bmatrix} c_i \\ d_i \end{bmatrix} \in \mathbb{R}^{(m_1+m_2)}$$

Subsequently, the dimensions of $\mathbf{A}$ and $\mathbf{b}$ are $\mathbf{A} \in \mathbb{R}^{n(m_1+m_2) \times n(p+m_2)}$ and $\mathbf{b} \in \mathbb{R}^{n(m_1+m_2)}$.

REFERENCE

- [1] V. Khatana and M. V. Salapaka, “DC-DistADMM: ADMM algorithm for constrained optimization over directed graphs,” *IEEE Trans. Autom. Control*, vol. 68, no. 9, pp. 5365–5380, Sep. 2023.

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