

Errata for *Examining the Limits of the Application of Semidefinite Programming to Power Flow Problems*

This list describes the changes and corrections made to the paper *Examining the Limits of the Application of Semidefinite Programming to Power Flow Problems* [A] after its initial publication.

1. **Error in the objective function of the dual form of the semidefinite relaxation of the OPF.**

Corrected October 7, 2013

There was an error in the objective function of the dual form of the semidefinite relaxation of the optimal power flow problem. In equation (11), the term $\sum_{k \in \mathcal{G}} (c_{k0} - \mathbf{R}_k^{22})$ was incorrectly specified as $\sum_{k \in \mathcal{G}} (c_{k0} - \mathbf{R}_k^{12})$.

2. **Errors in the Seven-Bus System in Figure 5.**

Corrected October 7, 2013

There were several errors in the system diagram shown in Figure 5. The load demands at buses 3, 4, and 5 of $0.942 + j0.190$, $0.135 + j0.058$, and $0.183 + j0.127$ per unit, respectively, were incorrectly specified as $0.2 + j0.1$, $0.6 + j0.1$, and $0.2 + j0.1$ per unit, respectively. The impedance of the line connecting buses 3 and 4 of $0.024 + j0.100$ per unit was incorrectly specified as $0.04 + j0.12$ per unit. The impedance of the line connecting buses 4 and 5 of $0.024 + j0.100$ per unit was incorrectly specified as $0.04 + j0.12$ per unit.

References

- [A] B.C. Lesieutre, D.K. Molzahn, A.R. Borden, and C.L. DeMarco, "Examining the Limits of the Application of Semidefinite Programming to Power Flow Problems," *49th Annual Allerton Conference on Communication, Control, and Computing (Allerton)*, 2011, pp. 1492-1499, 28-30 September 2011.