Convex Relaxations of Chance Constrained AC Optimal Power Flow

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Comments and Corrections

Correction to “Convex Relaxations of Chance Constrained AC Optimal Power Flow”

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In the article [1], there is a typo in the equation in (45) in (Section III.D). The correct formula should read:

$$N_s \geq \frac{1}{\epsilon} \frac{e}{e-1} \left(\ln \frac{1}{\beta} + 2n_W - 1 \right) \quad (45)$$

In addition, the statement in (Section III.V) that the approximation of the joint chance constraint with individual chance constraints with the same maximum allowable violation probability ϵ is “conservative” is incorrect. In fact, the maximum of the observed individual chance constraint violation probabilities only provides a lower bound on the joint chance constraint violation probability.

REFERENCE

- [1] A. Venzke, L. Halilbasic, U. Markovic, G. Hug, and S. Chatzivasileiadis, “Convex relaxations of chance constrained AC optimal power flow,” *IEEE Trans. Power Syst.*, vol. 33, no. 3, pp. 2829–2841, May 2018.

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