

Erratum: ReDBeam: Real-time MU-MIMO Beamforming with Limited CSI Data Samples [1]

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On page 2, right column, first paragraph:

“Then we have the N CSI data samples of $\mathbf{h}_{(g,i)}$ drawn from the unknown distribution $\mathbb{P}_{\mathbf{h}_{(g,i)}}$. ”

should be reworded as

“Then we have the N noisy CSI data samples of $\mathbf{h}_{(g,i)}$ drawn from the unknown distribution $\mathbb{P}_{\mathbf{h}_{(g,i)}}$ with intrinsic estimation errors. ”

On page 2, right column, equation (1):

“ N samples from unknown distribution $\hat{\mathbf{h}}_{(g,i)} \sim \mathbb{P}_{\mathbf{h}_{(g,i)}}$. ”

should be reworded as:

“ N noisy samples $\hat{\mathbf{h}}_{(g,i)}$ from unknown distribution $\mathbb{P}_{\mathbf{h}_{(g,i)}}$. ”

On page 6, left column, third paragraph, the following sentence should be added to the end of this paragraph:

“Due to intrinsic estimation errors, even if N goes to infinity, the empirical distribution based on noisy CSI data samples does not converge to the true distribution. Therefore, $\theta_{(g,i)}$ will always be a positive number.

References

- [1] S. Li, N. Jiang, C. Li, Y. T. Hou, W. Lou, and W. Xie, “ReDBeam: Real-time MU-MIMO Beamforming with Limited CSI Data Samples,” in *Proc. IEEE ICC*, pp. 5104–5110, Denver, CO, USA, June 09–13, 2024.