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Correction

Correction: Nedelcu et al. Low-Resolution Precoding for Multi-Antenna Downlink Channels and OFDM. *Entropy* 2022, *24*, 504

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1. Error in Figure

In the original publication [1], there was a mistake in Figure 1 as published. The labels of the output signals $x_1[t] \ldots x_N[t]$ should appear at the output of the power amplifier as transmit waveforms. The corrected version of Figure 1 appears below.

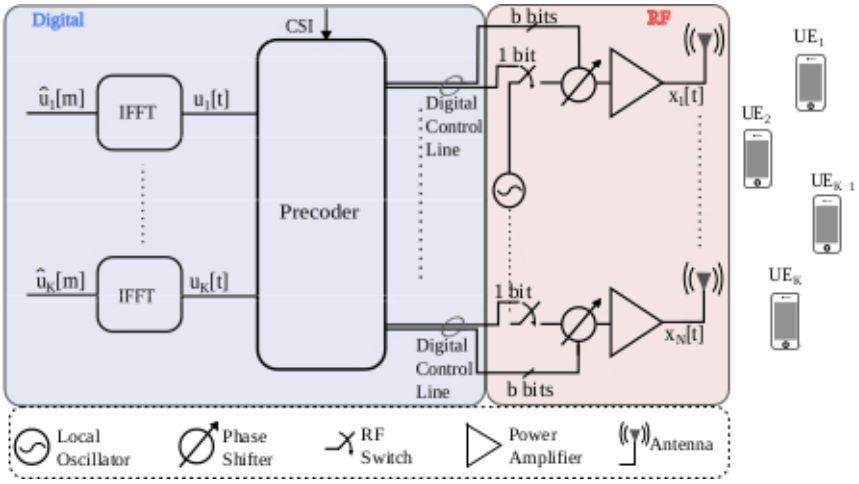

Figure 1. Multi-user MIMO downlink with a low resolution digitally controlled analog architecture.

2. Text Correction

There was an error in the original publication. "Blind detector" is incorrect and should be replaced throughout with "data aided detector".

1. A correction has been made to **Abstract:**

"The information rates are computed for pilot-aided channel estimation and data-aided channel estimation."

2. A correction has been made to **1. Introduction,** ***1.2. Discrete Signaling and OFDM,*** **Paragraph Number 1**:

"For this purpose, we consider two types of channel estimation at the receivers: pilot-aided channel estimation via pilot-aided transmission (PAT) and data-aided channel estimation."

3. A correction has been made to **1. Introduction,** ***1.3. Contributions and Organization,*** **Bullet Point Number 4**:

"We develop an auxiliary channel model to compute achievable rates for pilot-aided and data-aided channel estimation. The models let one compare modulations, precoders, channels, and receivers;"

check for updates

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4. A correction has been made to **4. Performance Metrics, *4.1. Achievable Rates*, Paragraph Number 2**:

"We study the GMI of two non-coherent systems: classic PAT and data-aided channel estimation. For both systems, we apply memoryless signaling with the product distribution"

5. A correction has been made to **4. Performance Metrics, *4.1. Achievable Rates*, Paragraph Number 5**:

"For the data-aided detector we replace S_p with S in (20)."

6. A correction has been made to **4. Performance Metrics, *4.1. Achievable Rates*, Paragraph Number 6, Bullet Point 3**:

"For the data-aided detector, in (21) we replace S_p with the set of all index pairs (ℓ,m), and we replace S_p with S;"

7. A correction has been made to **4. Performance Metrics, *4.1. Achievable Rates*, Paragraph Number 5, Bullet Point 4:**

"For the data-aided detector we set $\mathrm{S}_p = \emptyset$ in (22);"

8. A correction has been made to **4. Performance Metrics, *4.2. Discussion*, Paragraph Number 1**:

"Third, as S grows, the channel estimate of the data-aided detector becomes more accurate and the performance approaches that of a coherent receiver. Related theory for PAT and large S is developed in [49]. However, the PAT rate is generally smaller than for a data-aided detector because the PAT channel estimate is less accurate and because PAT does not use all symbols for data."

9. A correction has been made to **4. Performance Metrics, *4.2. Discussion*, Paragraph Number 2**:

"We remark that blind channel estimation can approach the performance of data-aided receivers for large S. Blind channel estimation algorithms can, e.g., be based on high-order statistics and iterative channel estimation and decoding."

10. A correction has been made to **5. Numerical Results, Paragraph Number 2:**

"The average GMIs for Systems A–C were computed using $S = 256$, $B = 200$, and a data-aided detector. The coded results of System D instead have $S = 1584$ symbols to fit the block structure determined by the LDPC encoder. For System D we considered both PAT and a data-aided detector."

11. A correction has been made to **5. Numerical Results, Paragraph Number 7**:

"The solid curves are for data-aided channel estimation and the dotted curves show the performance of PAT when the fraction of pilots is $S_p/S = 10\%$."

12. A correction has been made to **6. Conclusions, Paragraph Number 1**:

"The performance was analyzed by computing the GMI for two auxiliary channel models: one model for pilot-aided channel estimation and a second model for a data-aided channel estimation."

The authors state that the scientific conclusions are unaffected. This correction was approved by the Academic Editor. The original publication has also been updated.

Reference

1. Nedelcu, A.S.; Steiner, F.; Kramer, G. Low-Resolution Precoding for Multi-Antenna Downlink Channels and OFDM. *Entropy* **2022**, *24*, 504. [CrossRef] [PubMed]