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Review on the Matlab Code that Measures Power Received from Randomly Moving Signal

The signal strength experiment tests how random signals with limited power supply are sent for maximum power transmission. The current code does not reflect real environment very well and needs improvement. I used the parameters from Daniel Antonio's paper. The equation I got from the paper isFor A, I used 1.62e-02, from For B, I used 11.2, from

The assumptions I made are as follows. First, every signal does not die out until the total power which is limited is exhausted. Second, I measured the total emitted power/strength by calculating the strength with distance 1, which turns out to be A, and summing all the strength calculated.

For the receiver, I used coordinate of (10,10). I calculated the distance from the randomly moving signal to the receiver and used it as d. Then, I added all the strength received at the receiver. I graphed the transmitted strength in the excel file “Step Size and Transmitted Strength”. The graph shows that the relationship is linear and does not provide meaningful insight at the signal’s movement.

This model does not give insights on how to maximize the power transmission. I have questions on what to change other than step size and number of signals given the power for each signal is constant.