





## 5. Observations

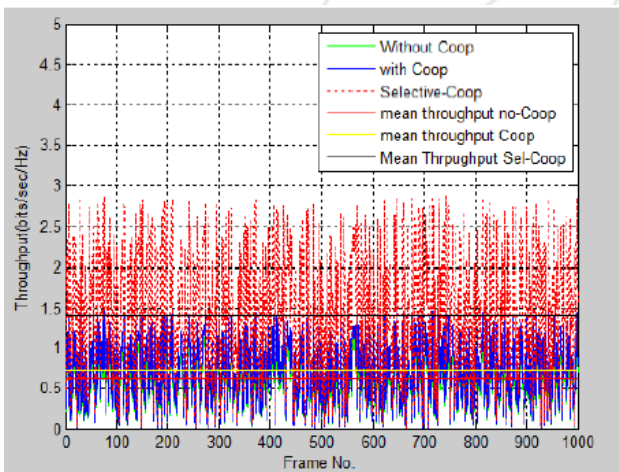
Our observation from simulation revealed that for some of the time. The user throughput without cooperation (3) is better than expression (4) for  $\alpha = \frac{1}{3}$ . Maximum Throughput and SINR for cell edge user for different cooperative scheme is shown in table 1.1 and 1.2.

**Table 1.1:** Maximum Throughput for cell edge user (bit/sec/Hz) for different cooperation schemes

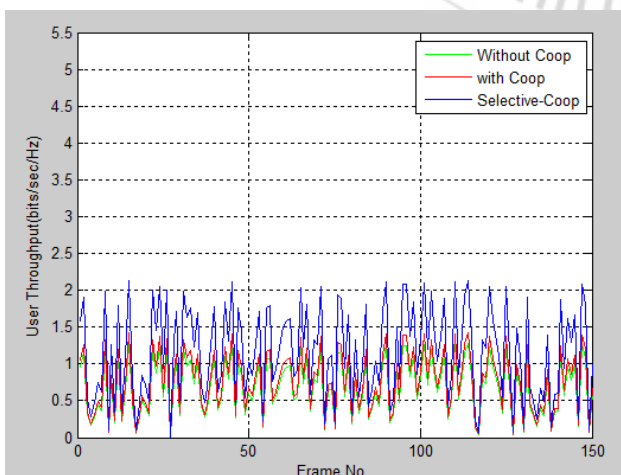
Types of Cooperation	Cooperative MIMO	Simple Cooperation	Cooperation with 1 bit phase feedback
Without Cooperation	1.56	1.56	1.56
With Cooperation	7.92	8.22	8.22

**Table 1.2:** SINR for different cooperative schemes

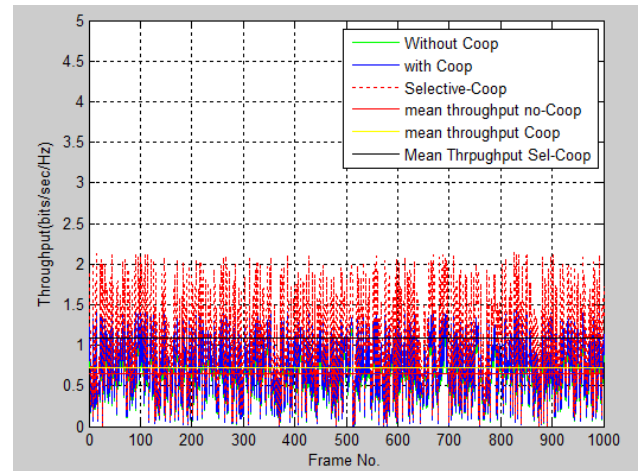
Type of scheme	Cooperative MIMO	Simple Cooperation	Cooperation with 1bit phase feedback
Without Cooperation	1.28	1.28	1.28
With Cooperation	1.42	1.47	1.47
Selective cooperation	2.14	2.88	2.20



**Figure 1:** User throughput comparison for various operations in simple cooperation



**Figure 2:** User throughput comparison for various operations in Cooperative MIMO for First 150 frames



**Figure 3:** User throughput comparison for various operations in Cooperative MIMO

## 6. Conclusion

In cooperative communication, throughput is improved but in resource fairness cooperation, the user capacity of a cell edge user is not always better than normal transmission. By doing selective cooperation throughput is improved. The throughput improvement is achieved from full cooperation to selective cooperation for same SINR.

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