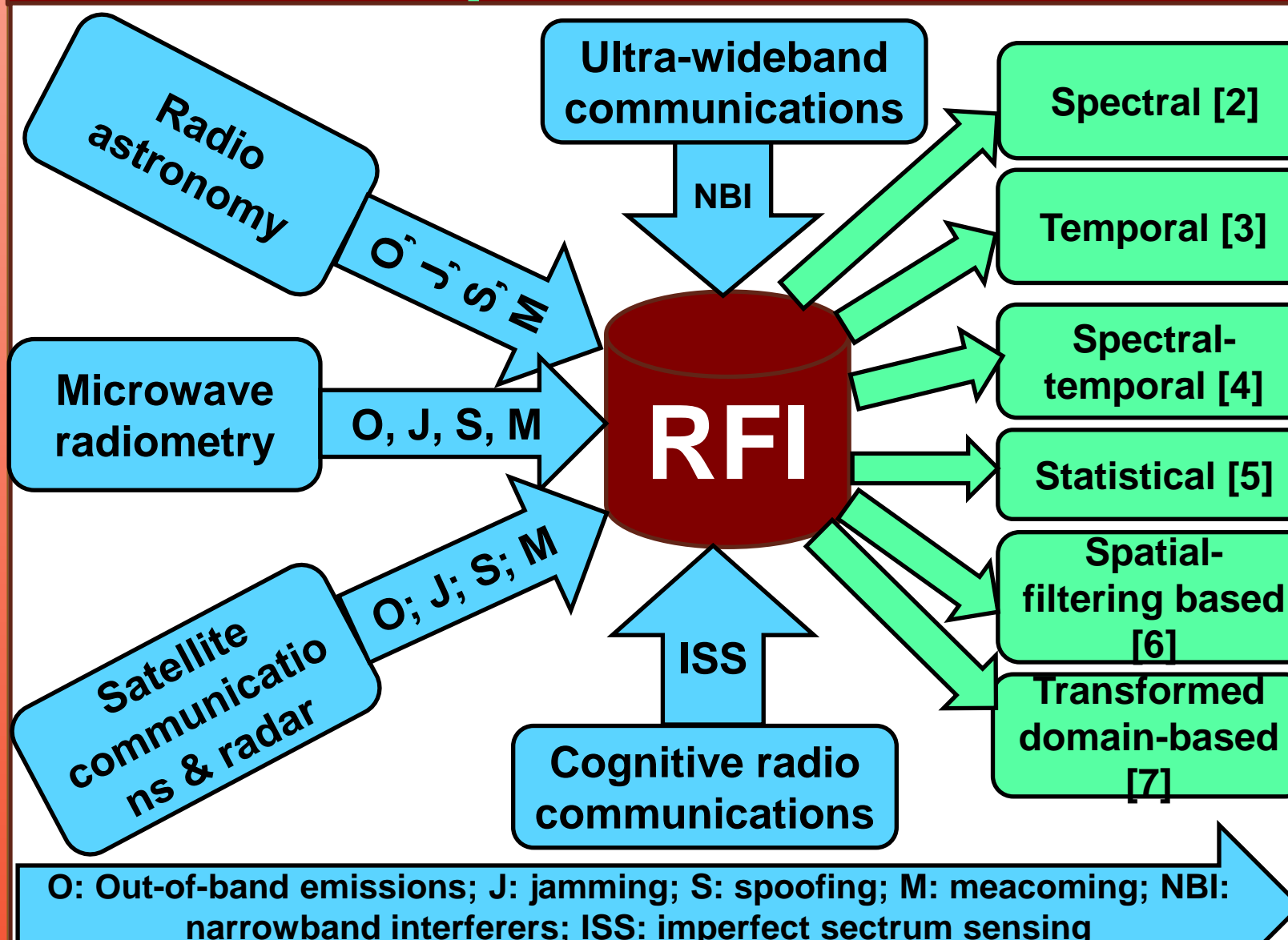


## Motivation: RFI Causes & Proposed Solutions



## System Model

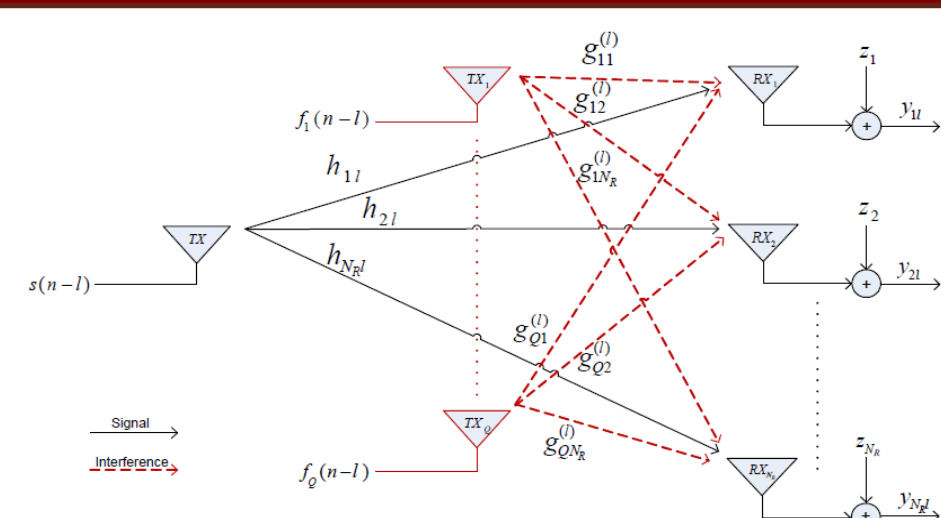
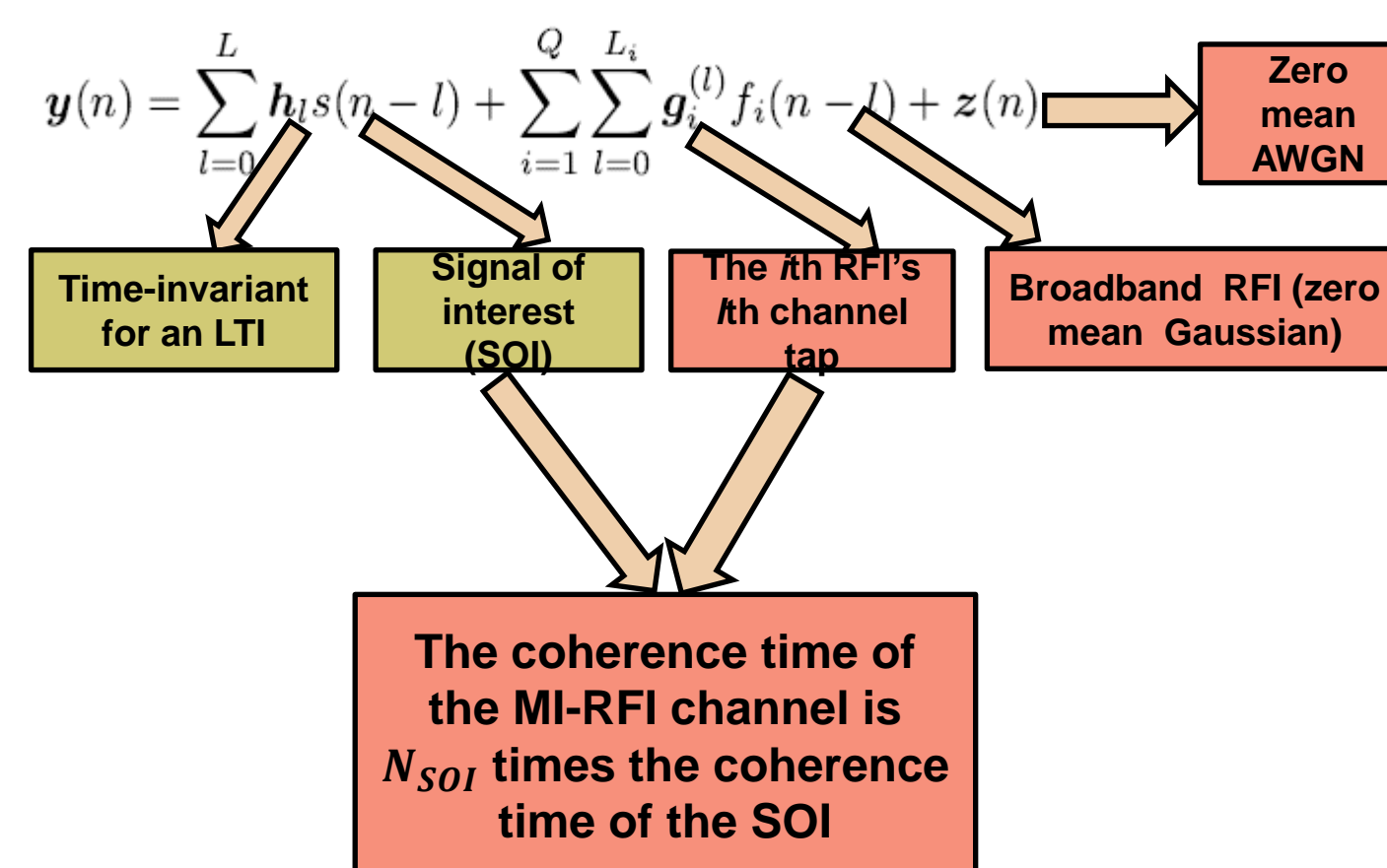
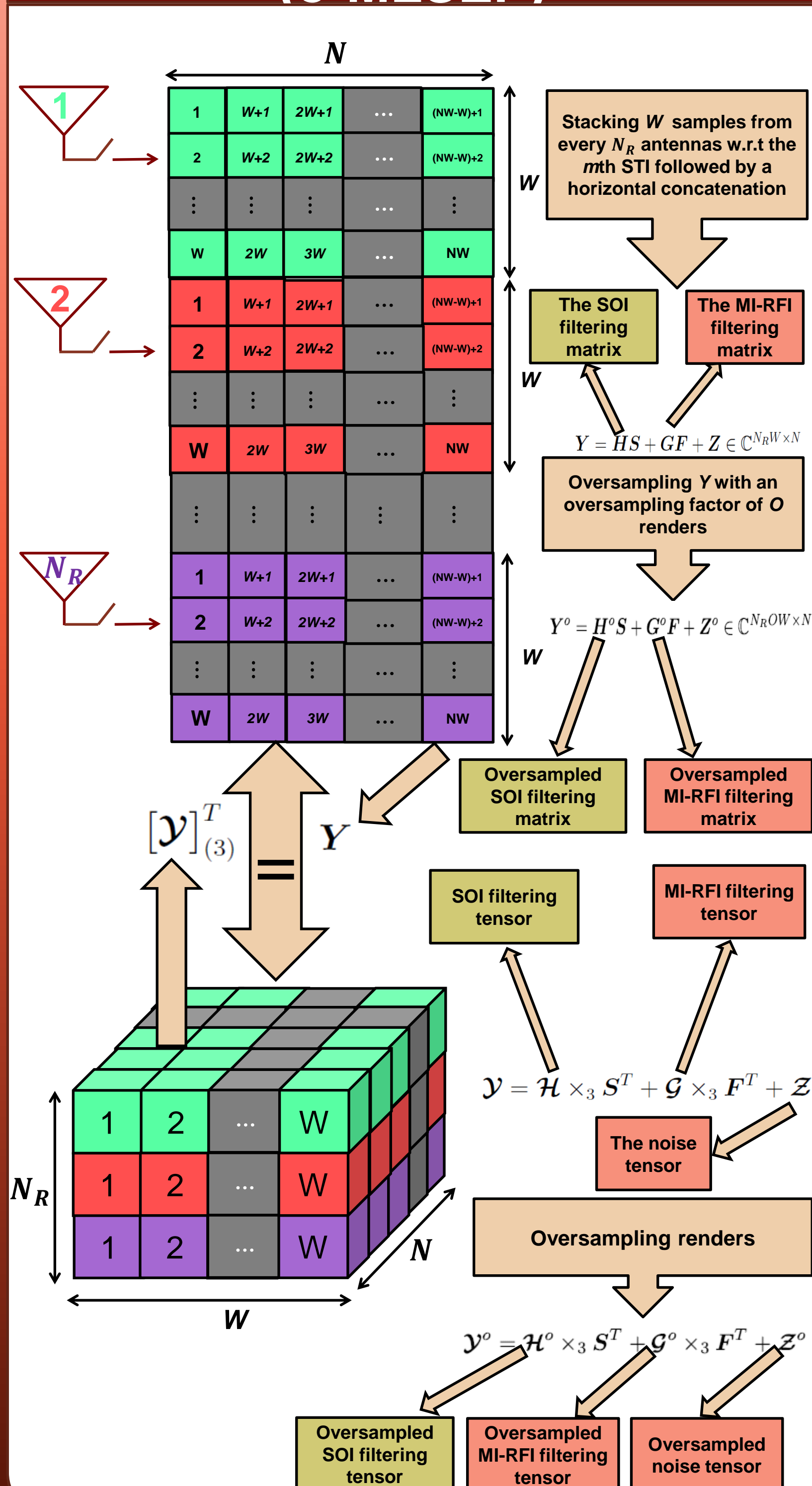


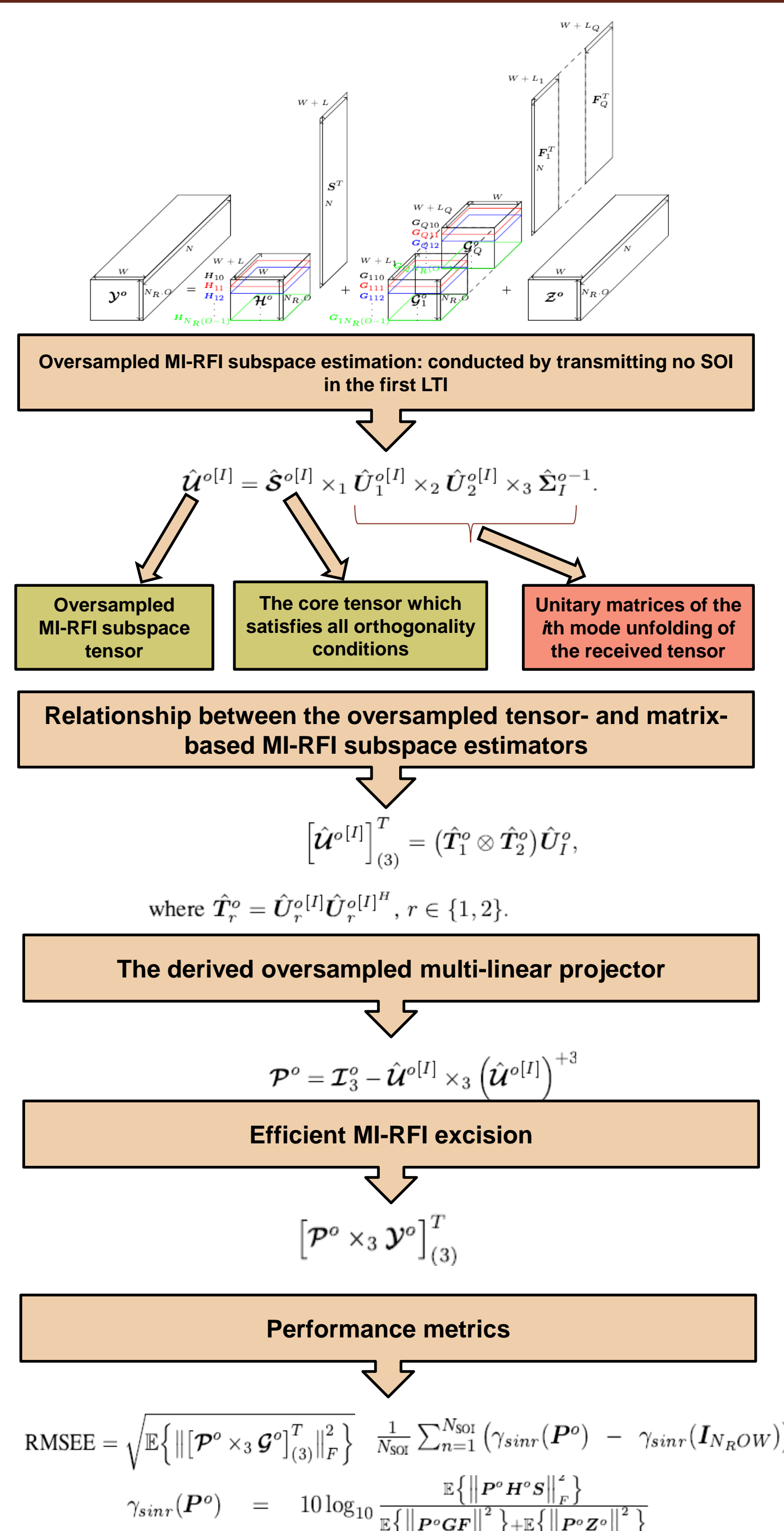
Fig. 1. A baseband schematic depicting the  $l$ th multi-path component of a SIMO system suffering from  $Q$  interferers.



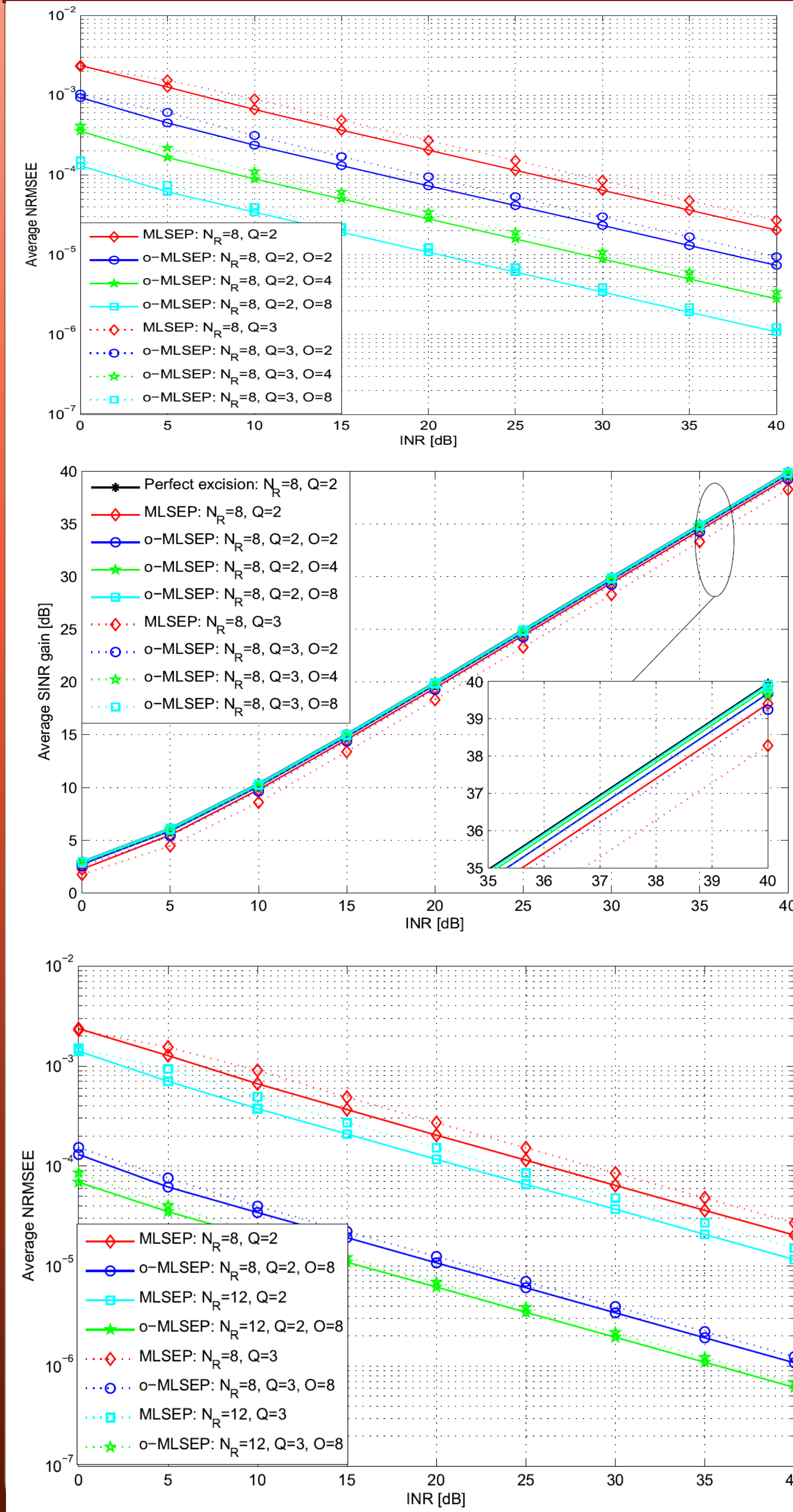
## Oversampled MLSEP (o-MLSEP)



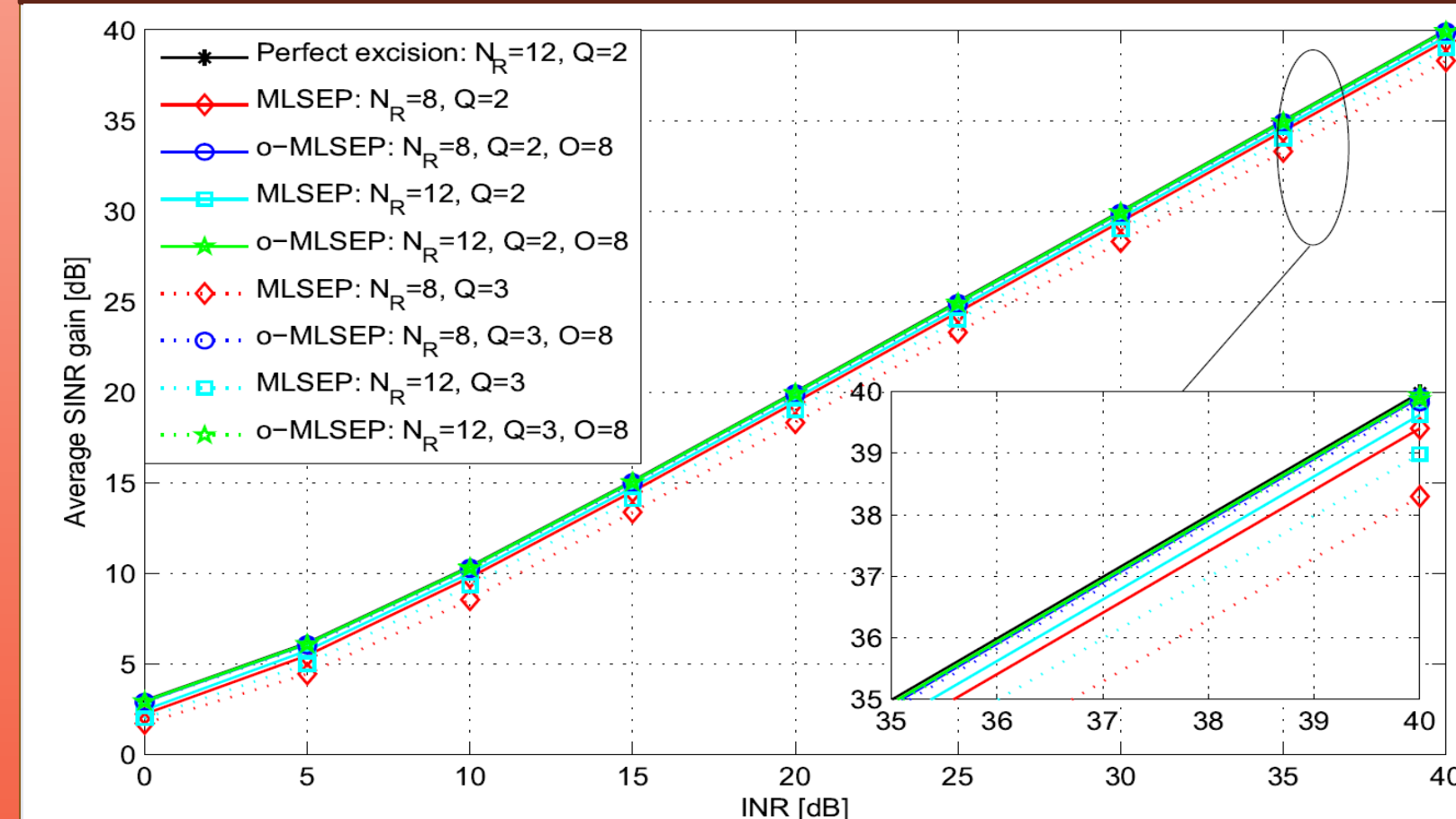
## O-MLSEP (cont.)



## Results



## Results (cont.)



## Conclusions

- ❖ This paper proposes the oversampled multi-linear subspace estimation and projection (o-MLSEP) algorithm for SIMO systems suffering from multi-interferer RFI (MI-RFI)
- ❖ Simulations corroborate improvement in the normalized RMSEE (NRMSE) and average SINR gain for o-MLSEP w.r.t MLSEP [1]
- ❖ The proposed o-MLSEP algorithm significantly improves the MLSEP algorithm proposed in [1] as the oversampling factor gets larger and larger
- ❖ The proposed o-MLSEP algorithm offers a new insight toward the excision of a time-variant MI-RFI

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