Improving the evaluation performance of space-time trellis code through visualisation

ABSTRACT

In this paper we present a new visualisation approach in the effort of improving the evaluation strategy of space-time trellis code (STTC) generator matrix G. To our knowledge, although visualisation is widely used to handle a variety of problems, it has never been employed specifically to solve complexity problems that are related to generator matrix G evaluation. Most approaches are either mathematically or algorithmically inclined. As such, they tend to offer a series of refinement that enhances the current available method, but do not provide fresh insight on the problem at hand. By comparing it with the enhancement strategy that was discovered via the normal approach (i.e., by analysing algorithm) it was discovered that visualisation had inspired an entirely different pruning technique that outperformed the common approach by 20%.