Design and Evaluation of Successive Interference Cancellation Query Tree algorithm

In the work [1] the authors have investigated how the query tree resolution algorithm can be used to improve latency performance. Tree algorithms work through a step wise random decisions such that it cannot terminate at a deterministic number of slots. However, if the addresses of users are used for tree resolution and the address set is limited this can be translated into deterministic guarantees of a tree resolution. In this work initially, the use of addresses for tree resolution will be investigated. Furthermore, the address set size will be compared to change in deterministic limits of the resolution. In this work we want to improve the capabilities through use of successive interference cancellation. Scope of the work:

- Simulative and analytical assessment of the developed resolution algorithm

Requirements: Communication Background, any language for simulations, stochastic analysis


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