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Transfer Matrix of Ray Tracing Simulated MIMO Radio Channel

The paper considers application of planar wave assumption for extrapolation of SISO ray tracing data into ray tracing data for arbitrary MIMO antenna geometry. The paper gives expressions for such extrapolation considering issues regarding polarization, arbitrary antennas at both sides of communication channel and frequency. Straightforward formulation is given, that parses impacts of the antenna elements from impact of multipath environment to the final elements of the MIMO transfer matrix.

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