Inverse Design

2D method of moments

Scalar unknown approximated by constant basis functions,
only Toeplitz and diagonal matrices have to be evaluated,
symmetries, Huygens’ principle used for visualization.

Lensing problem

Optimize source quantities to realize optimal focusing at specified points.

Synthesis of microwave circuits

4× WR187 @ 4 GHz, 80 × 60 optim. elements (3.044 mm)

b = Sa

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Other topics: EM theory, fundamental bounds, synthesis