Measuring the field distribution of a planar cavity

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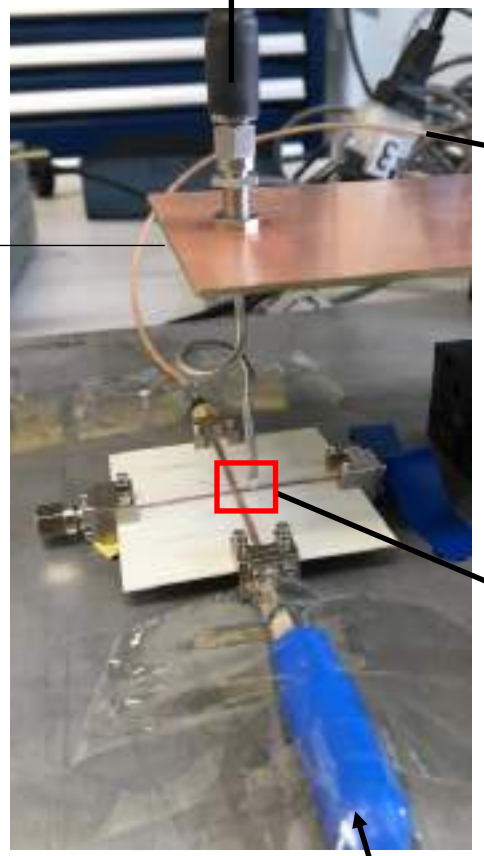
Experiment setup

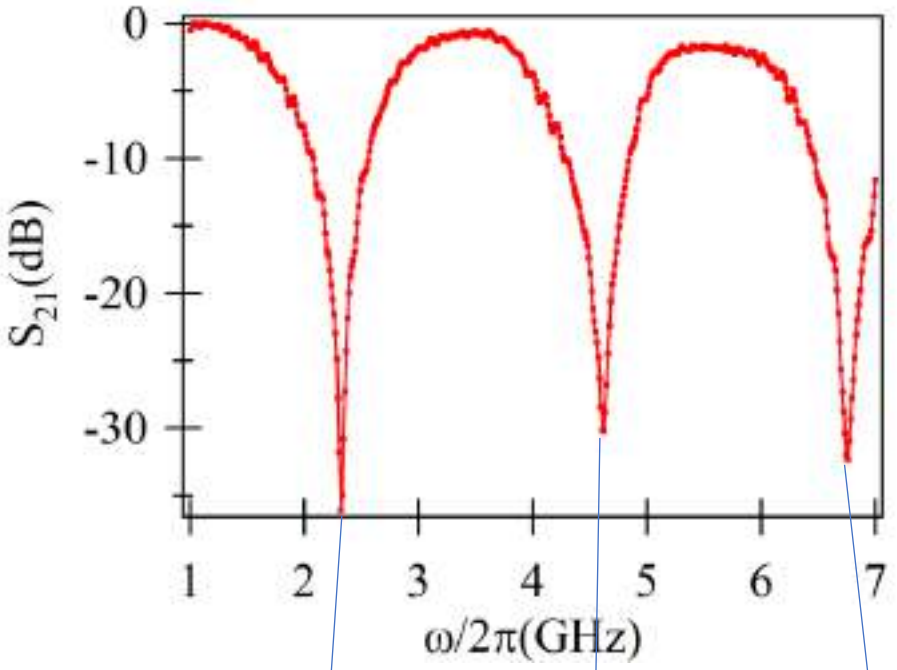


Commercial products

Electric Magnetic

SG — Cavity — SA

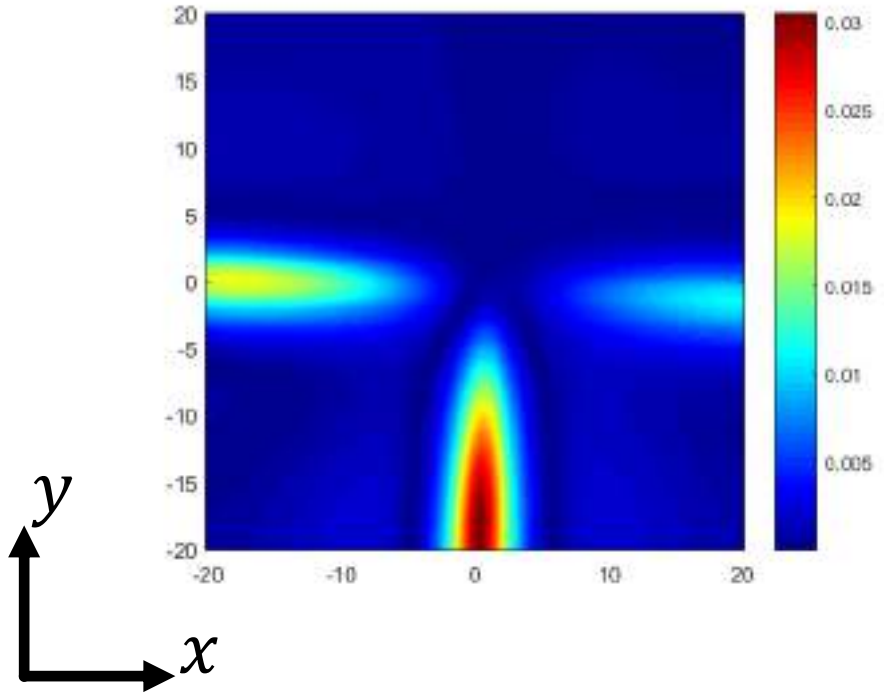
Transmission spectrum



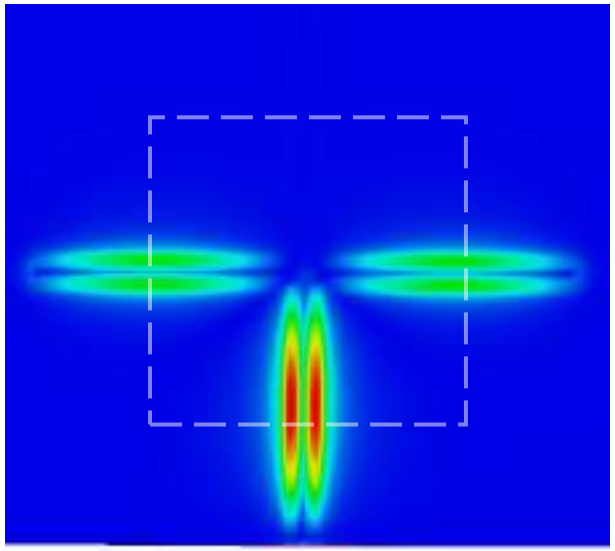
1st mode 2nd mode 3rd mode

Electric field results

Measurement

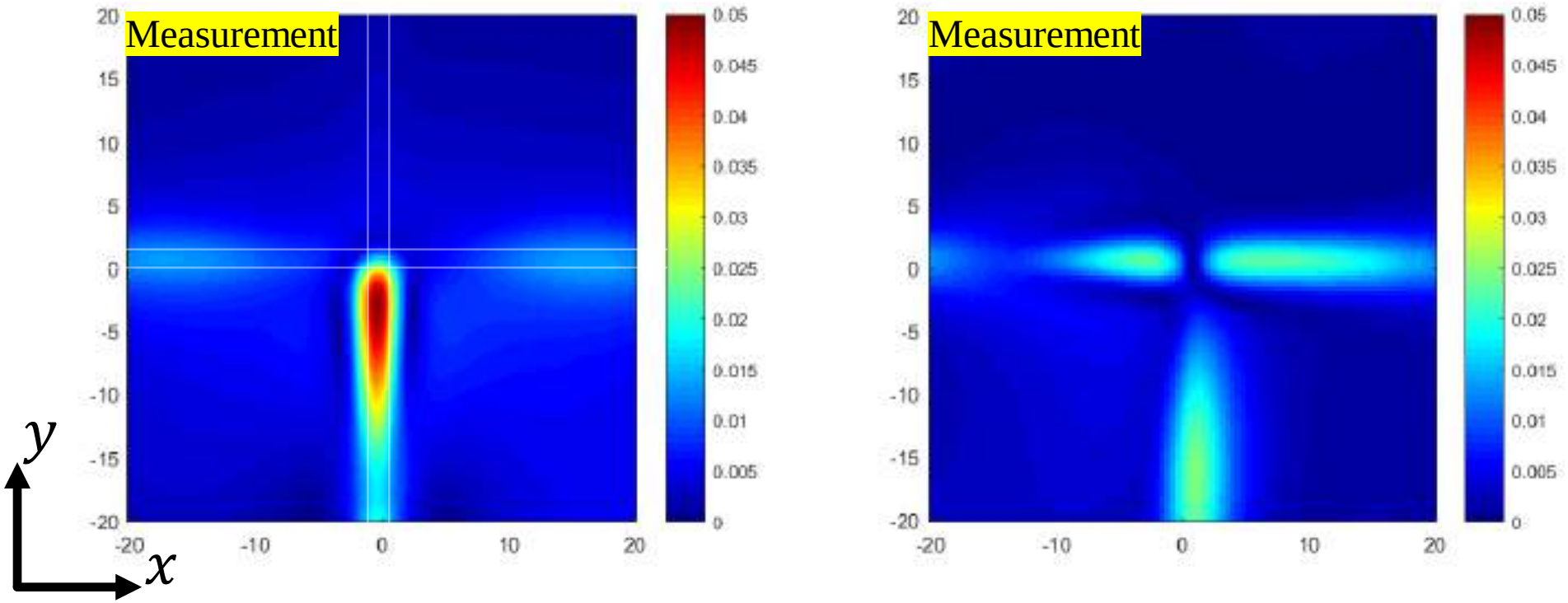


CST simulation

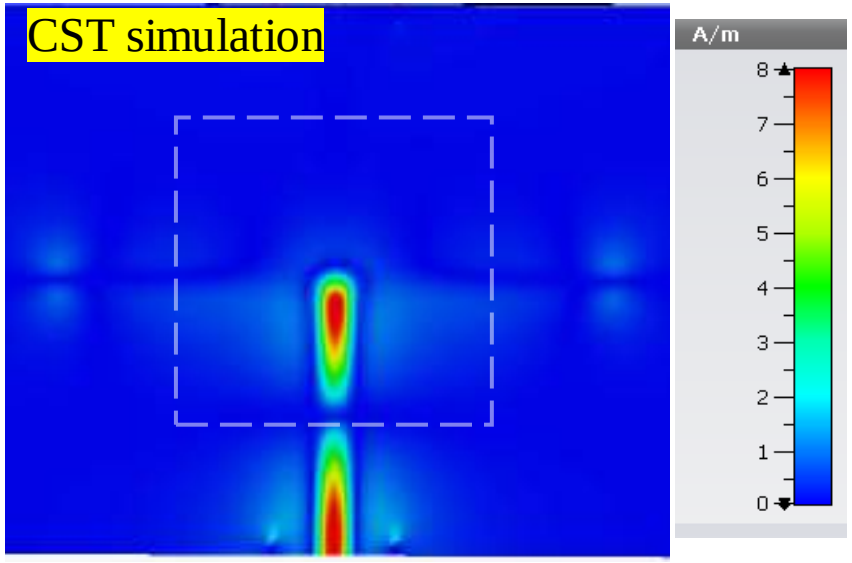


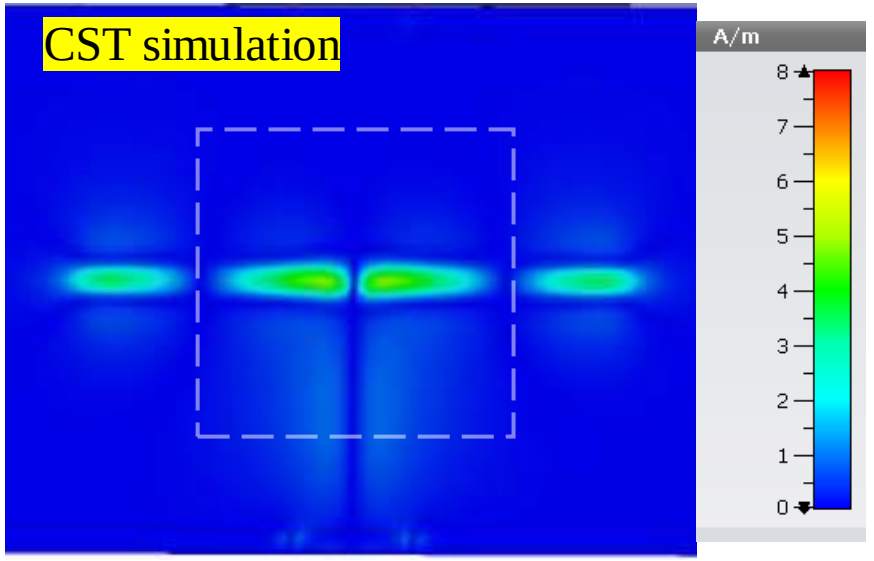
H_x field distribution

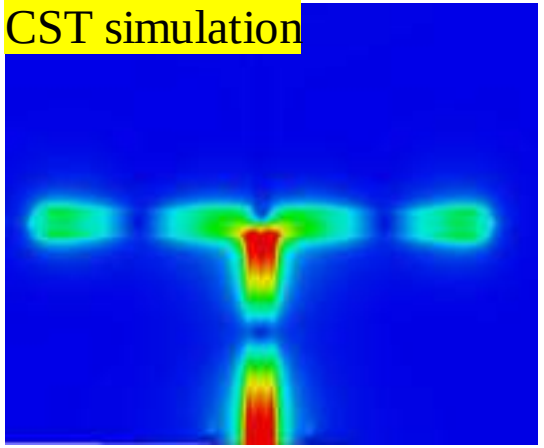
H_y field distribution



H_{abs} field distribution

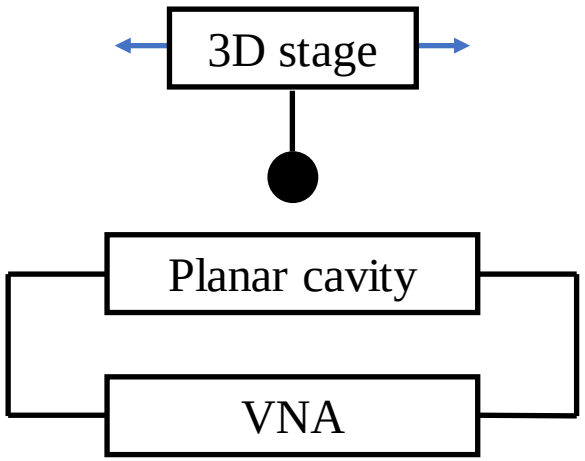


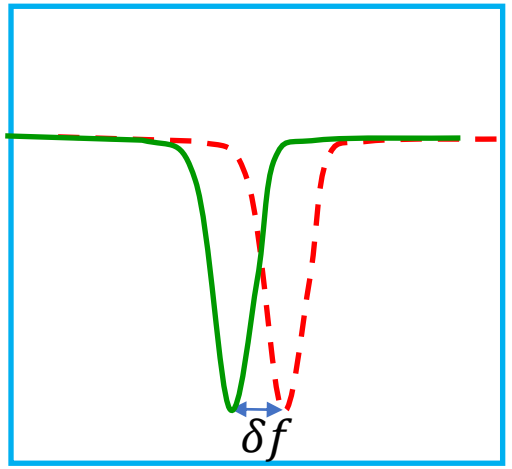




Next step

Determine the standing wave using cavity perturbation method:

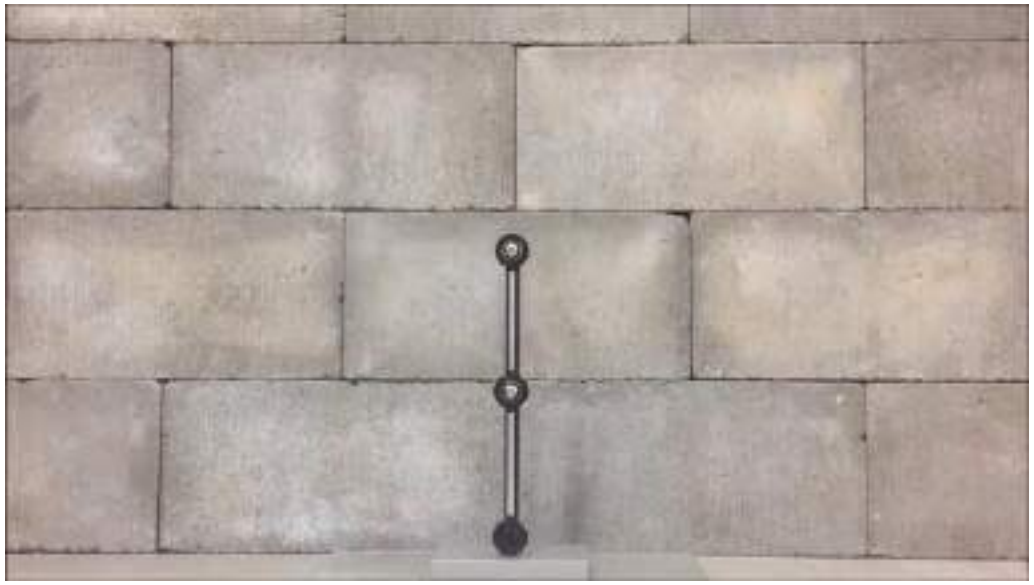




Write the paper about the level attraction in metamaterials

Further experiment: DIY coupled pendulum

Example on internet: double pendulum



High performance bearing

Aluminum tube

Long exposure shows chaos