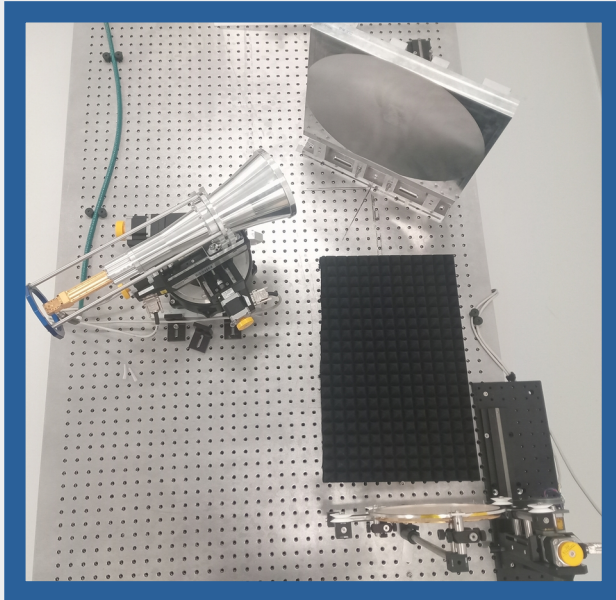


# Calibration of an open dielectric haloscope

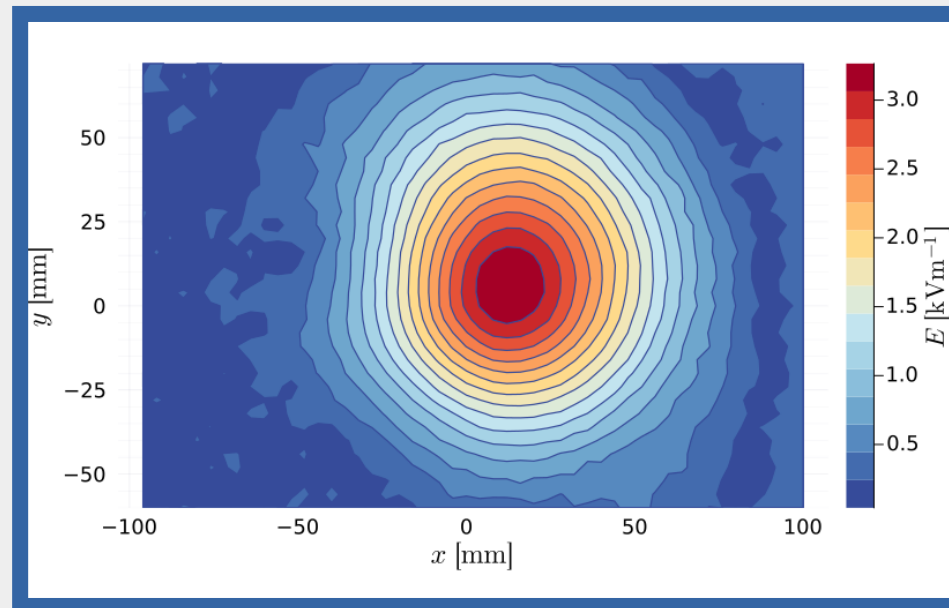
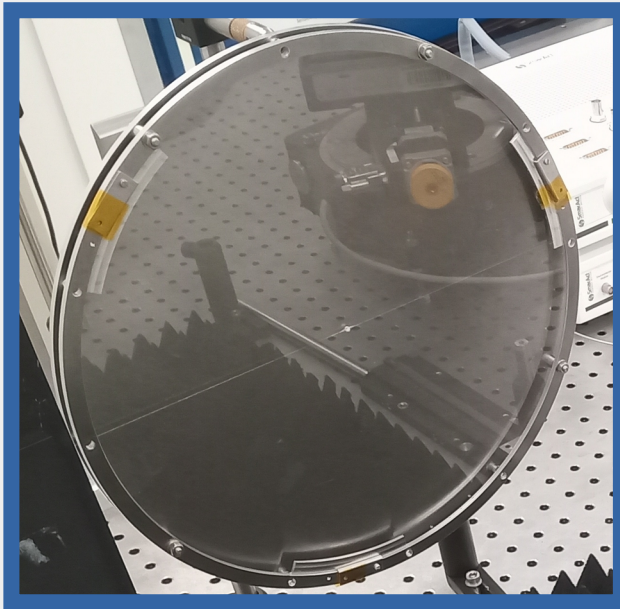


$$P_{sig} = \frac{g_{ayy}^2}{16 P_{in}} \left| \int_{V_a} dV \underline{E_R} \cdot \dot{a} \underline{B_e} \right|^2$$

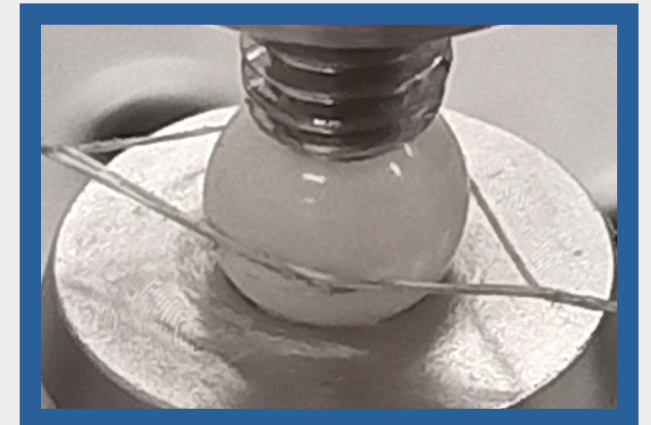
Electric field excited  
by reflection  
measurement

- Aim: Measure potential signal power via the reciprocity approach
- Model-independent
- Applicable to cavities, dish antennas, dielectric haloscopes, etc.
- Especially overmoded or open systems

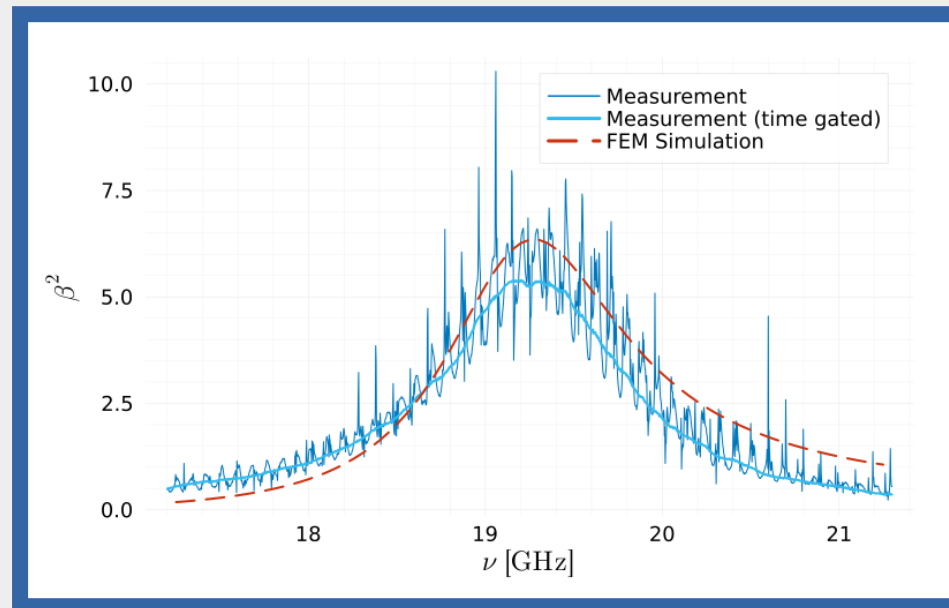
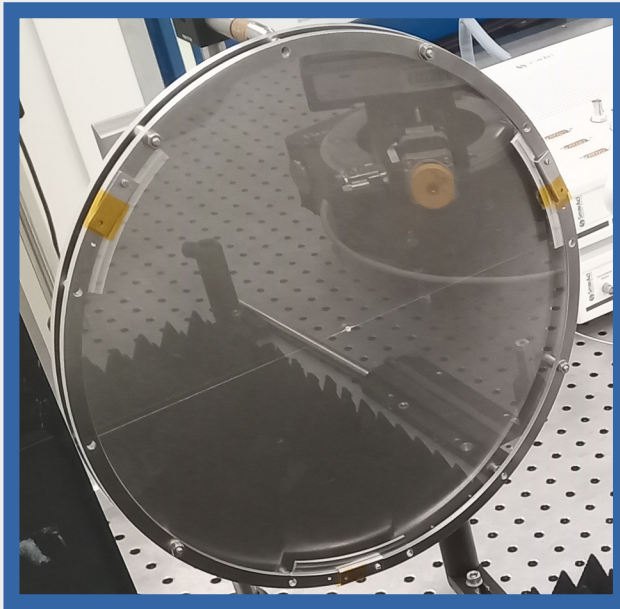
# Calibration of an open dielectric haloscope



- Measure  $E_R$  with bead pull method



# Calibration of an open dielectric haloscope



- Integrate  $E_R$  to obtain signal power

