Investigation of the COMPASS cavity
MW-sensor for the spectral measurements

Diagram:
- Whip-Antenna
- MW-ferrite modulator
- MW-detector
- Generator
- P. A.
- Display
- 200 Hz
Position of the whip-antenna in the cavity
Radial distribution of MW-power

![Graph showing radial distribution of MW-power for cylindrical and cone cavities]
Comparison of spectrum in the cone and in the cylindrical cavities.
Calculation of the $E$ and $M$ modes in the 23 and 15 cm cavities

$$V_E = \frac{3 \cdot 10^{10}}{2\pi} \sqrt{\left(\frac{p\pi}{l}\right)^2 + \left(\frac{\eta_{mn}}{R_0}\right)^2}$$

$$V_M = \frac{3 \cdot 10^{10}}{2\pi} \sqrt{\left(\frac{p\pi}{l}\right)^2 + \left(\frac{\mu_{mn}}{R_0}\right)^2}$$
Stopper Attenuation measurements

![Diagram of measurement setup with labels for MWMW generator, receiver, display, attenuator, power meter, and frequency meter. A graph showing microwave power as a function of frequency with two traces.]
Stopper performances

Detector output [Arb. Un.]

Frequency 70 GHz + MHz
Thank you