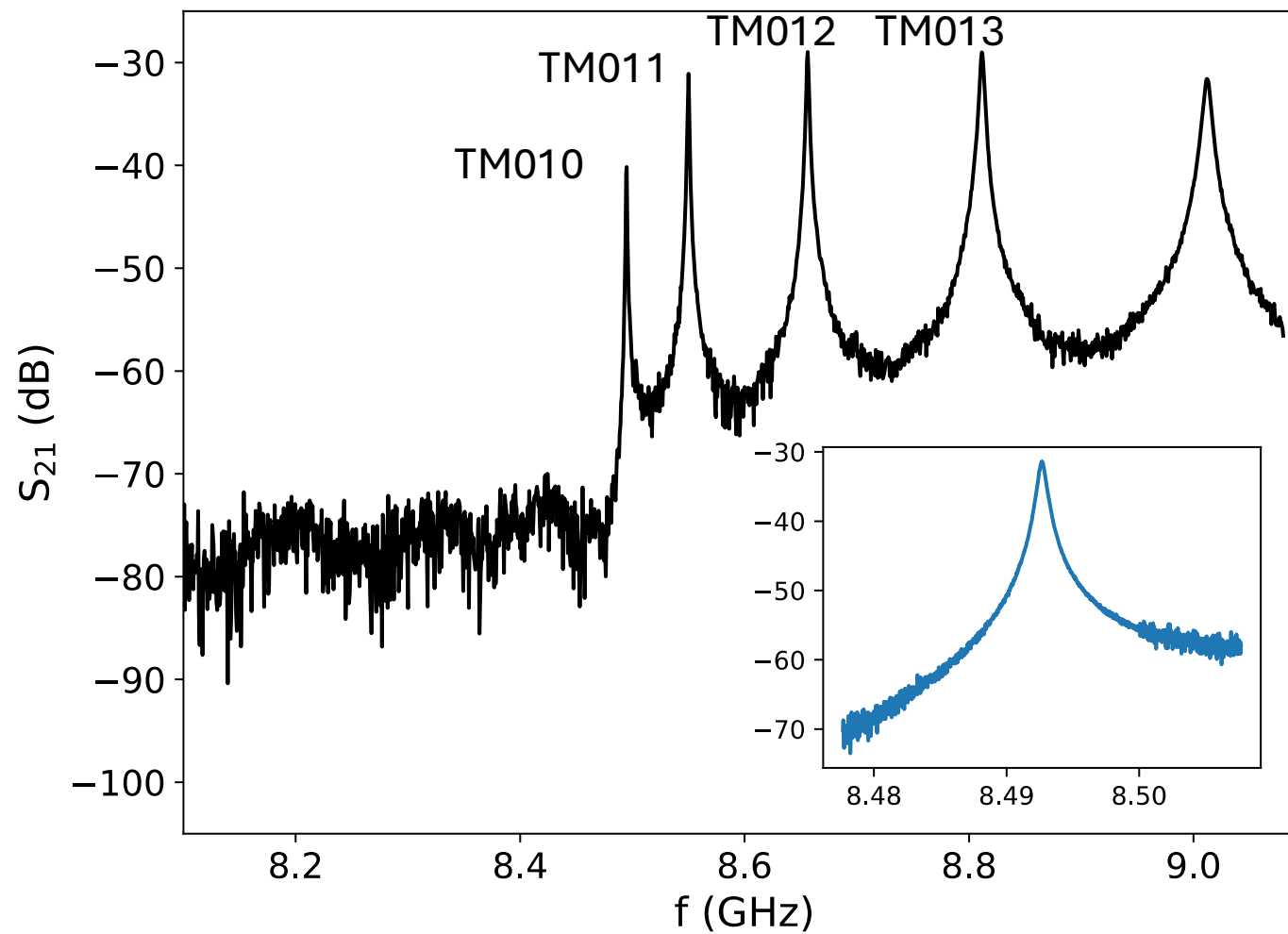
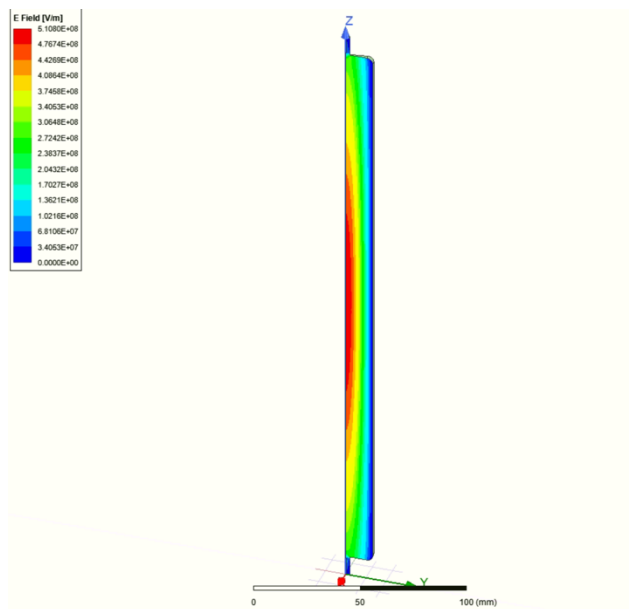
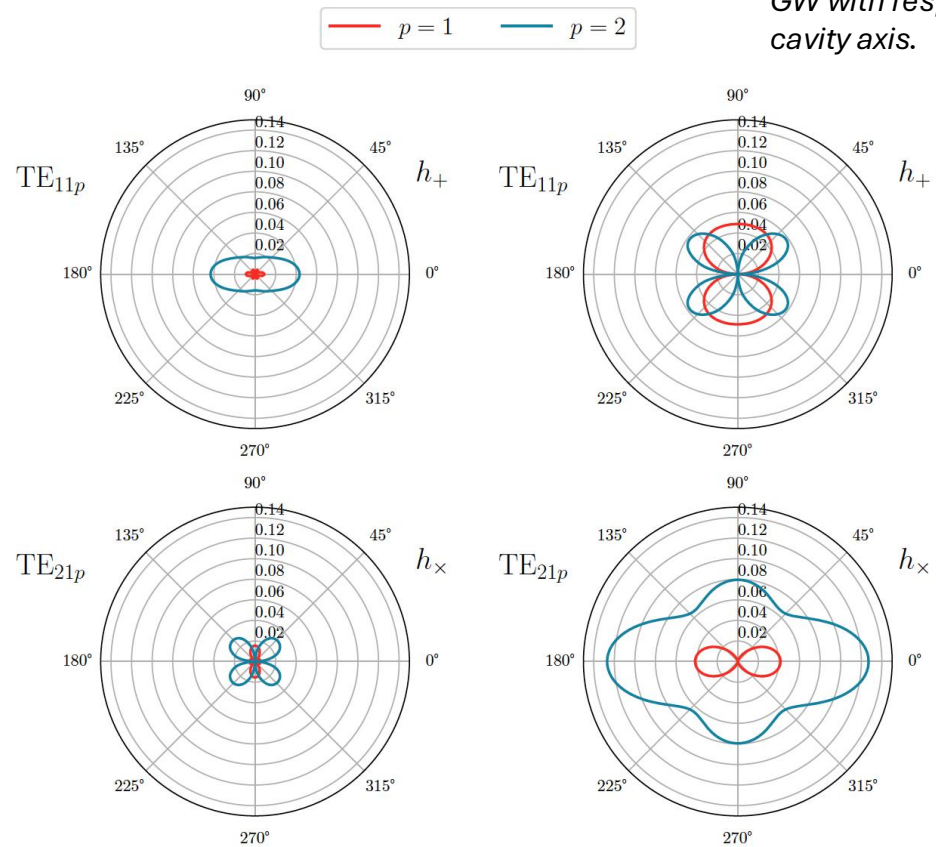


Signal Amplification

TM modes



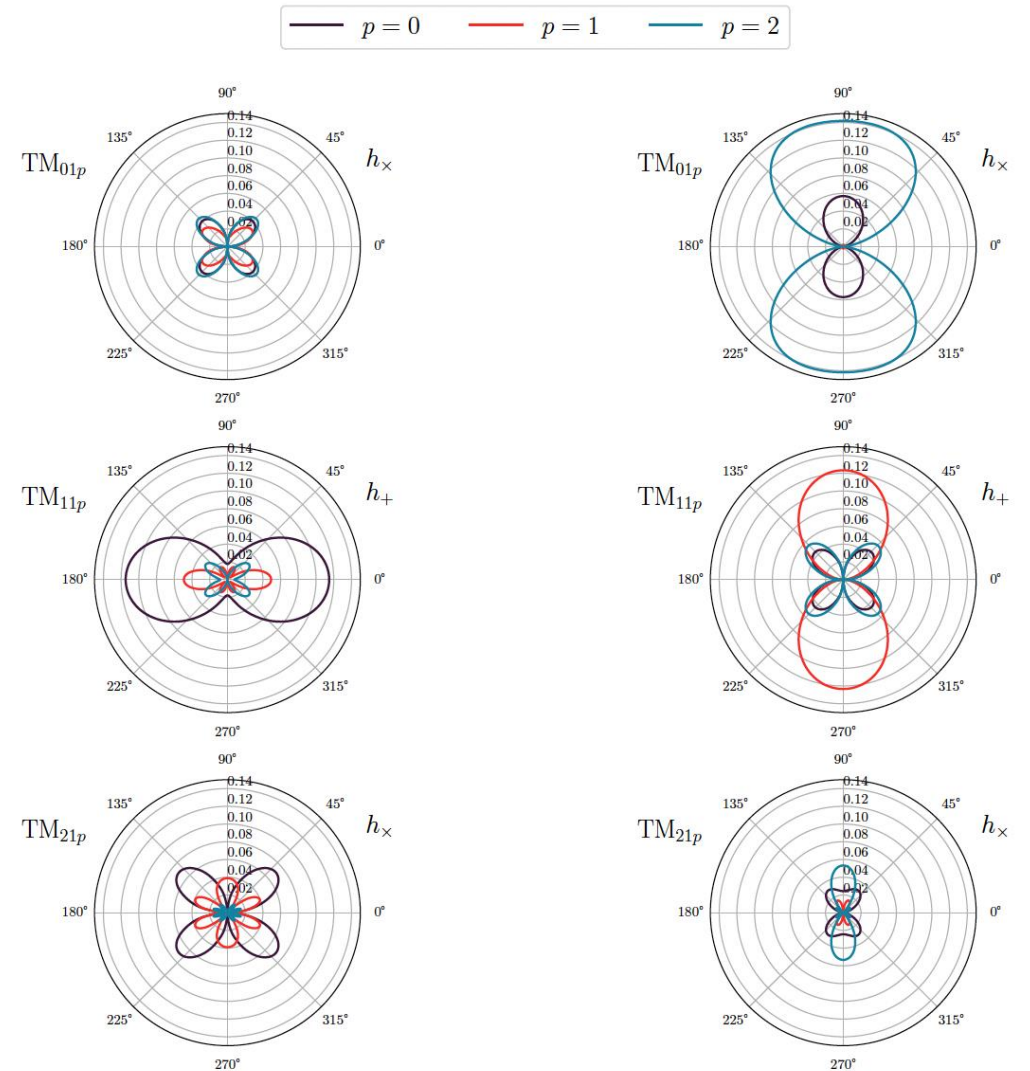
HFGW modes



B orthogonal cavity axis

B parallel cavity axis

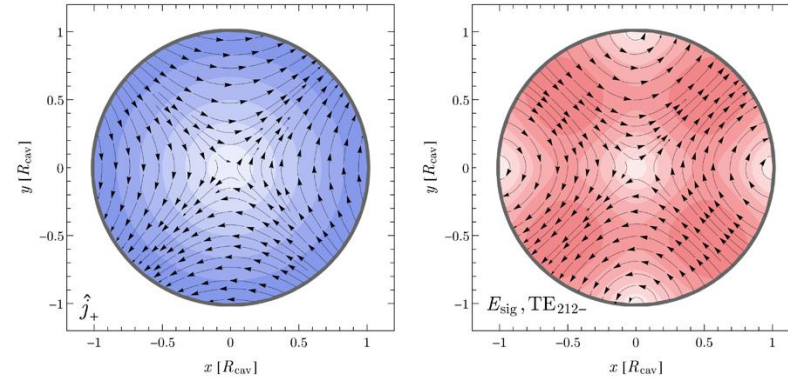
*Angle of the incoming
GW with respect to the
cavity axis.*



B orthogonal cavity axis

B parallel cavity axis

Physics Modes

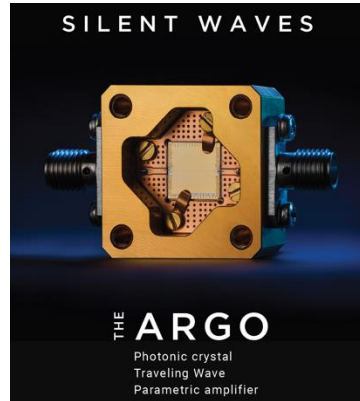


Mode	frequency	Physics
TM010	5.74 GHz	Axion; Dark Photon; GW
TM011	5.79 GHz	GW
TM012	5.93 GHz	GW
TE011	9.18 GHz	Scalar DM; Chameleons
TE111	4.45 GHz	Scalar DM
TE112	9.27 GHz	GW
TE211	7.33 GHz	GW
TE212	7.44 GHz	GW

Cylindrical cavity
 $R=20$ mm
 $H=200$ mm

TM: 5.74-5.93 GHz TE: 4.45-9.27 GHz

TWPA



TE modes

1. Higher frequency band TWPA n.1:
from 8.5 to 9.5 GHz
2. Lower frequency band TWPA n.1:
from 6.5 to 7.5 GHz

TM modes

1. Higher frequency band TWPA n.2:
from 7.5 to 8.5 GHz
2. Lower frequency band TWPA n.2:
from 5.5 to 6.5 GHz

