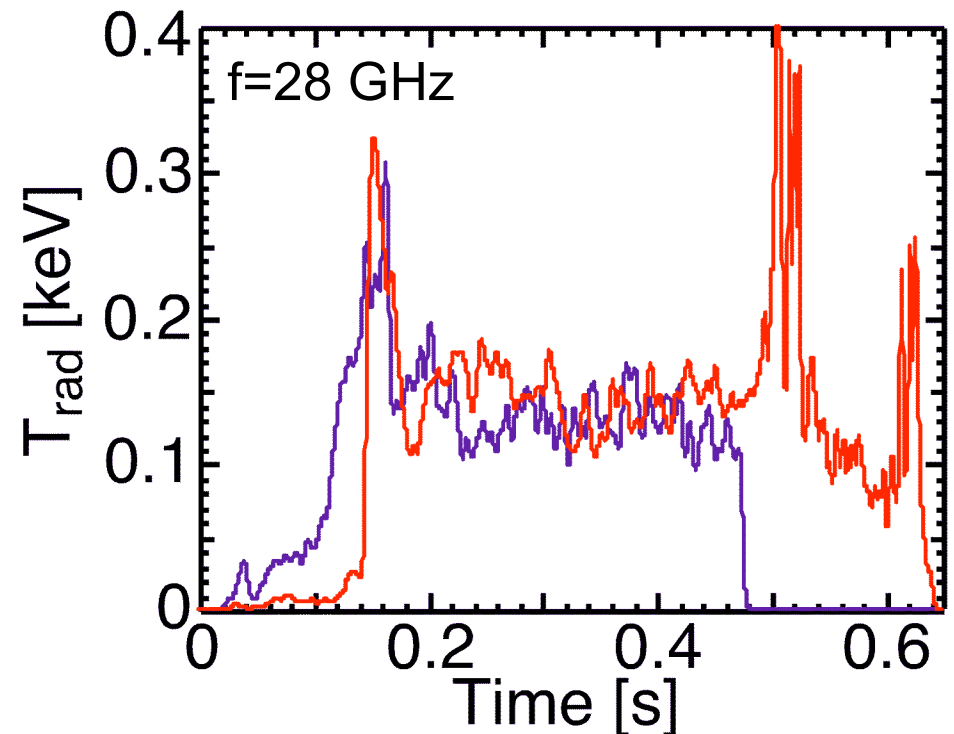
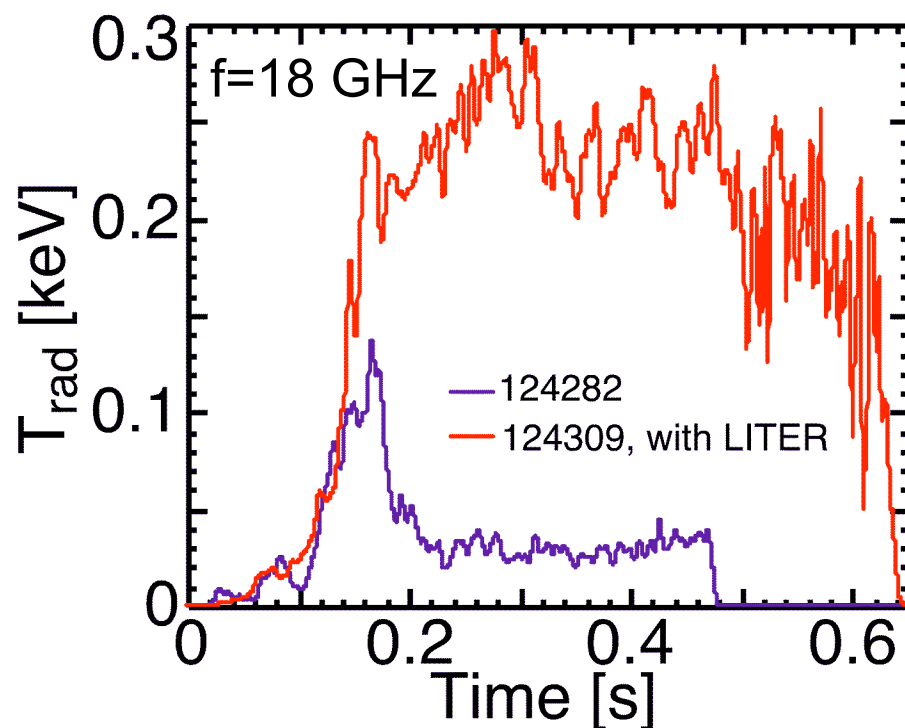


Increase in 18 GHz conversion efficiency observed with LITER conditioning



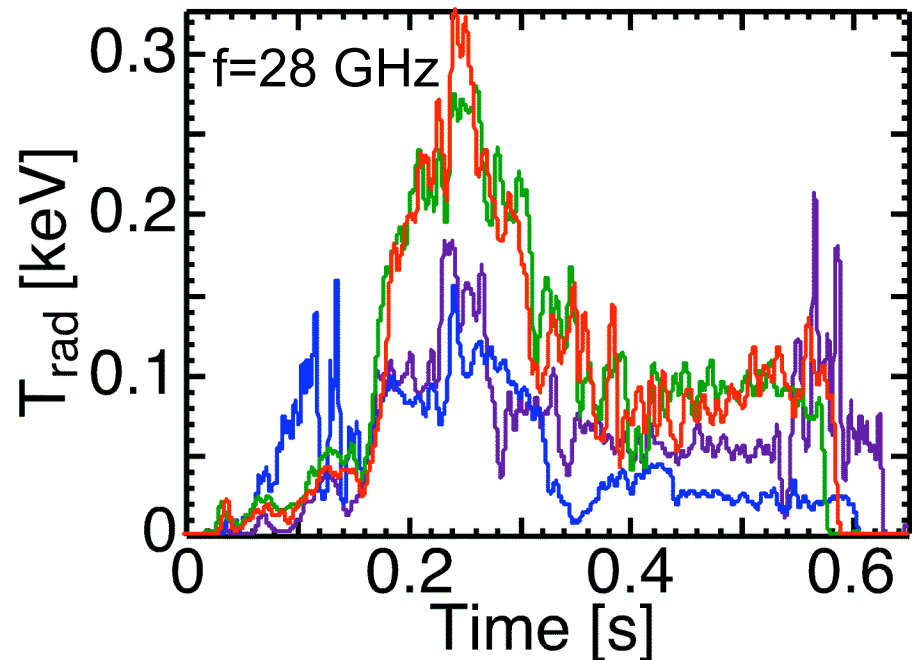
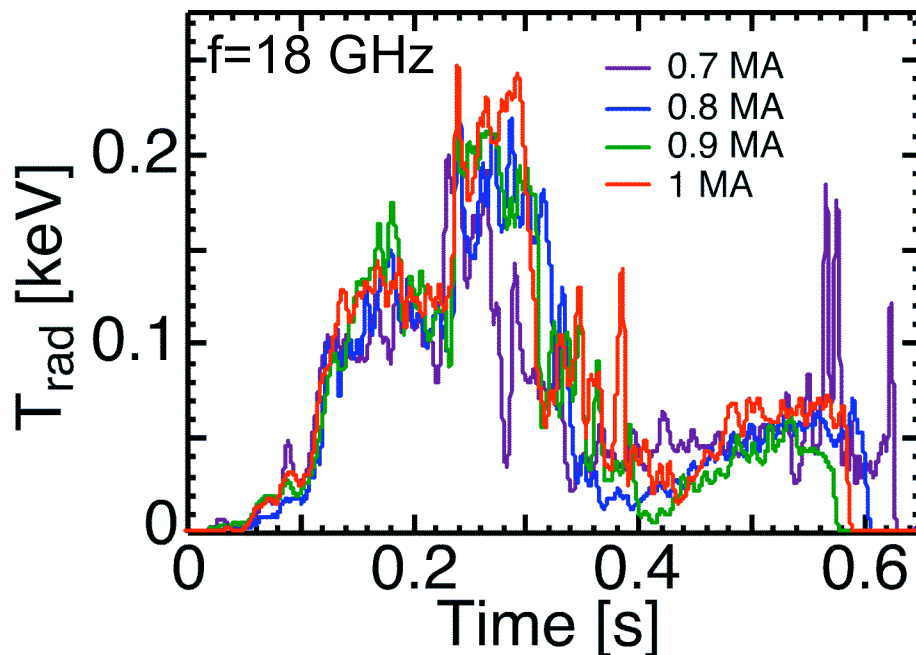
- Investigate collisional effects on B-X-O mode coupling
 - 18 GHz conversion efficiency increased from $\sim 3\%$ to 30% with LITER conditioning
 - Minimal change in 28 GHz conversion efficiency
 - Emission down by factor of 2 from target discharge (123544)



Change in edge field pitch increased 28 GHz emission



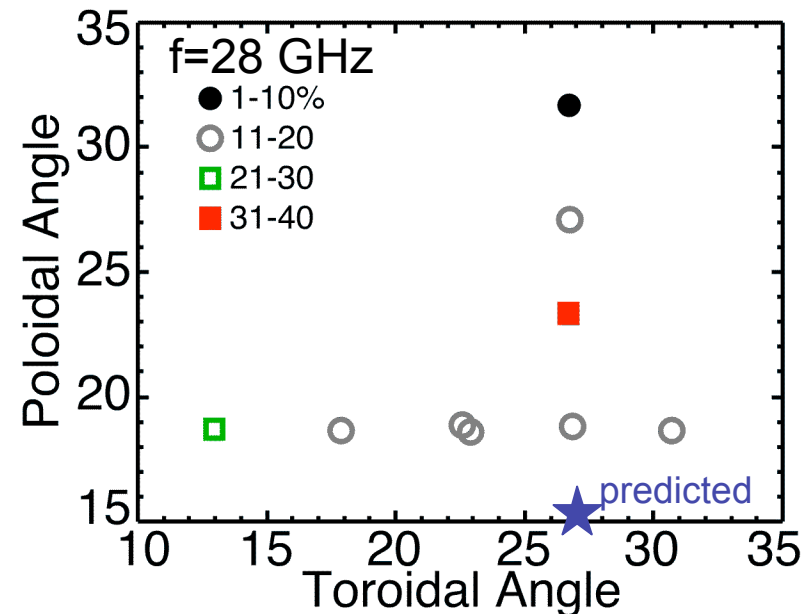
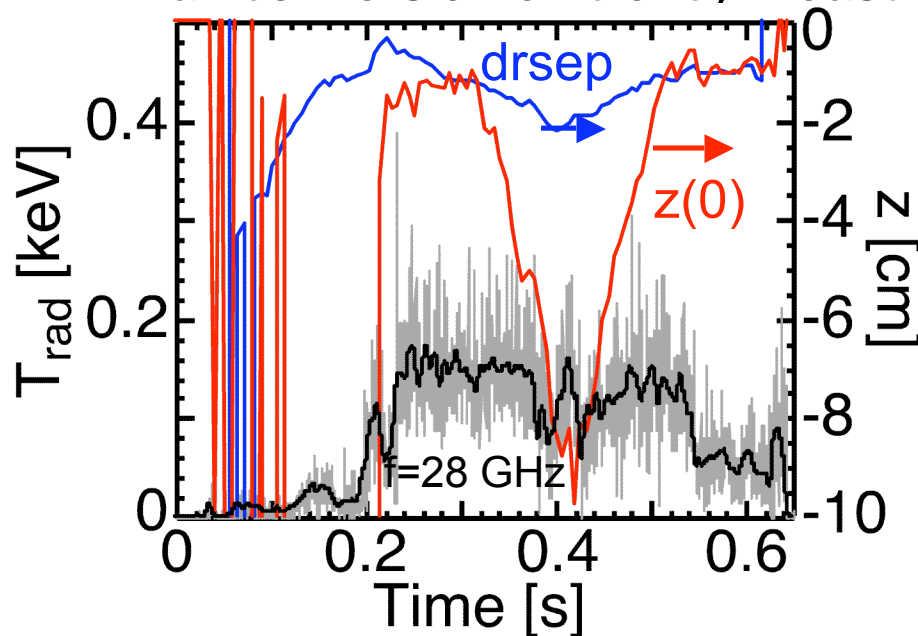
- Performed I_p scan to change edge field pitch
 - EBE remained the same for 15.5 and 18 GHz
 - EBE increase observed for 28 GHz with increase in I_p
 - MHD reduced emission after $t=0.3$ s, later in XP changed to 2 NBI sources



Antenna scan compromised by different LITER evaporation rates and NBI issues



- Investigate effects of plasma parameters on B-X-O coupling
 - Performed a drsep scan
 - EBE observed both a maximum and minimum value during drsep scan
- Antenna pointing direction scan used to optimize emission
 - Max conversion efficiency measured: 34%



XP-720 would benefit from 1/2 day run for consistent scan in an afternoon or morning following 1/2 day with LITER conditioning.