

# Status of frequency dependent squeezing for Advanced Virgo Plus

*Friday, 4 November 2022 12:20 (20 minutes)*

As one of the essential upgrades from the Third Observation run(O3) to the Forth Observation run(O4), frequency-dependent squeezing(FDS) aims to reduce the quantum noise, both the shot noise and radiation pressure noise, of the gravitational wave detectors. FDS combines the frequency independent squeezing(FIS), already applied in the O3 run, with a detuned 300m Fabry Perot cavity built at the beginning of the O4 commissioning period. This talk will give a brief introduction to the AdV+ FDS system and the latest results of the FDS measurement.

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**Session Classification:** Parallel