



Contribution ID: 18

Type: **not specified**

## Discussion

*Thursday, 18 March 2021 15:15 (1h 15m)*

- (1) Possibility of using an LHC access shaft to house a 100m atom interferometer targeting the 1 to  $10^{-2}$  Hz range
- (2) K. Oide's GW detection by resonant betatron oscillations, for the 10 kHz range
- (3) S. Rao's GW detection by a change in revolution period, but "using low-energy" coasting ion beam without RF - sensitivity down to  $10^{-5}$  Hz?
- (4) S. Ellis' suggestion for heterodyne detection using SC RF, up to  $\sim 10^7$  Hz?
- (5) GW generated by the beam; orbital frequency,  $\sim 10^4$  Hz for LHC, and the orbital frequency multiplied by the number of circulating bunches used - combined with high-frequency detector concept

**Presenter:** ELLIS, Jonathan R. (University of London (GB))

**Session Classification:** Summary and Outlook