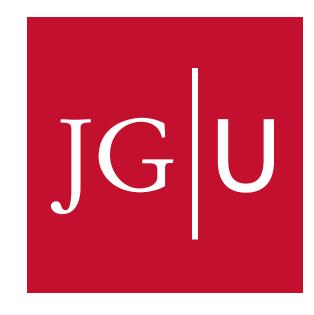
GravNet - thoughts on synchronisation -

24/03/2025

Kristof Schmieden





Requirements on sync. versus analysis method



- Analysis strategy
- Combination of frequency domain results

- Time-Domain combination
 - No information on directionality
 - Extracting source direction
- Phase aligned combination of RF (IF) signals

Single Photon Counting

- Requirements
- Milli-seconds time-stamping

- time-stamping, 3ms resolution (dist. LNF Mainz: 1000km)
- < ms: ~ 100 µs
- Phase synchronised RF (IF) clocks
- Exact frequency match of cavities
 - Seems impractical over large distances!

Minimum readout window: ~10µs

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