

Noise hunting in high frequency

- Noise is limited dark noise. We should see below dark noise.
- 1. Increasing whitening filter (Nakano)
- 2. Measuring power at PD and estimating dark noise (Ushiba)
- 3. Changing input power (Nakano)
- 4. Moving OSTM away (Takahashi)
- 5. Hunting peaks at 120, 240, 360Hz (Yokozawa)
- 6. Increasing trans impedance on RFPD



Noise hunting in low frequency

- Damp peaks
 - 1Hz, 2Hz
 - 4peaks for 20Hz with lowpass?(Lucia)
 - Notch filter 39.8Hz (Lucia)
- Optimization damping loop (Okutomi)
- Reducing floor noise
 - Photosensor loop (Lucia)
 - Circuit noise?
- Noise budget
 - for feedback signal, oplev (Lucia)
 - for coil driver noise (Ushiba)
- Investigation of oplev glitch, oplev noise floor (Okutomi, Yamada)
- Needs filters for Lock acquisition state and noise performance state