## Monolithic Accelerometers on the BS Inverted Pendulum: blending issues

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#### Accelerometers now on IP





### Accelerometers need calibration



# Takanori used the following scheme



He used the geophone specification as geophone calibration, so he was able to use it after geometrical adding of the 3 geophones. I think there's danger in doing that as the L4Cs can differ from specifications.

ef



## Takanori combined blend and calibration



## This is what I do at Virgo now





## Not possible here, no common position



Red rectangles = LVDT pos.

As the angle with respect to x and y (x and z for Virgo) differs for 'co-located' ACC and LVDT, I can't blend before geometric adding

We could model what high pass filter (i.e. roll-on freq) would work for what blending or find a way to get ACCs and LVDTs truly co-located

## Next week is my final week here

The dummy masses are expected end of next week, so I'm shifting goal of my project to fixing everything here so that I can work on it from Amsterdam

In that view, it would be nice to have someone here who understands the project and what I'm trying to do for local assistance

I know this project doesn't have the biggest priority, but I think it's also in (b)KAGRA's interest to try and get some results out of my efforts

Right now, Takanori's approach, I think, won't give you optimal low frequency control, which has effects on the rms displacement of the mirrors

