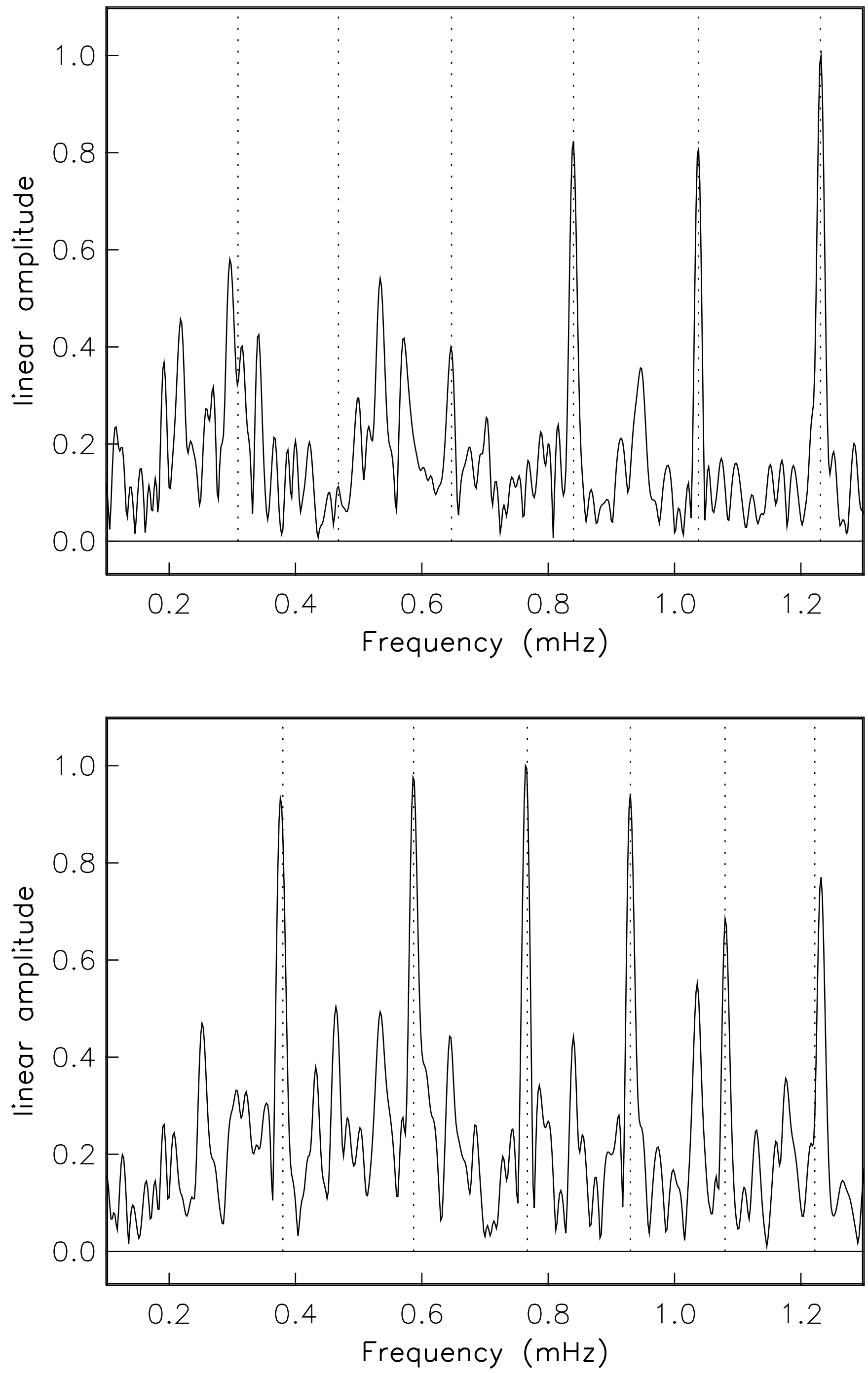

Figure 3 Amplitude spectra of two particular linear combinations of the three BFO strain meter recordings. In both cases the timeseries used are 40 hours long, hanning tapered and padded with zeros. The top panel shows the areal strain, that is the dilatation in the horizontal plane. The vertical dashed lines indicate the location of the fundamental spheroidal modes ${}_0S_2$ through ${}_0S_7$ as predicted by model 1066A (*Gilbert and Dziewonski, 1975*). The lower panel shows the maximal shear strain (see text). Here the vertical dashed lines indicate the predicted location of the fundamental toroidal modes ${}_0T_2$ through ${}_0T_7$. All the fundamental toroidal modes are well above the noise level. Note that while the lower panel is dominated by the toroidal modes they cancel completely in the upper panel. This observation confirms that the peaks in the lower panel are in fact associated with pure shear motion and are thus toroidal modes. The near-perfect cancellation of the toroidal modes in the upper panel can also be taken as a confirmation that the instrument calibrations are being modeled correctly.