

TABLE LEG TESTING

Compared 5 leg designs using the following figures of merit:

- 1) lower rms amplitude of table motion above 70 Hz (to reduce in-band modulation of clipping)
- 2) lower rms velocity (to reduce potential back-scattering noise - this is less important because we did not find back-scattering noise [next slide], and table motion amplitudes are less than 1/10 laser wavelength).

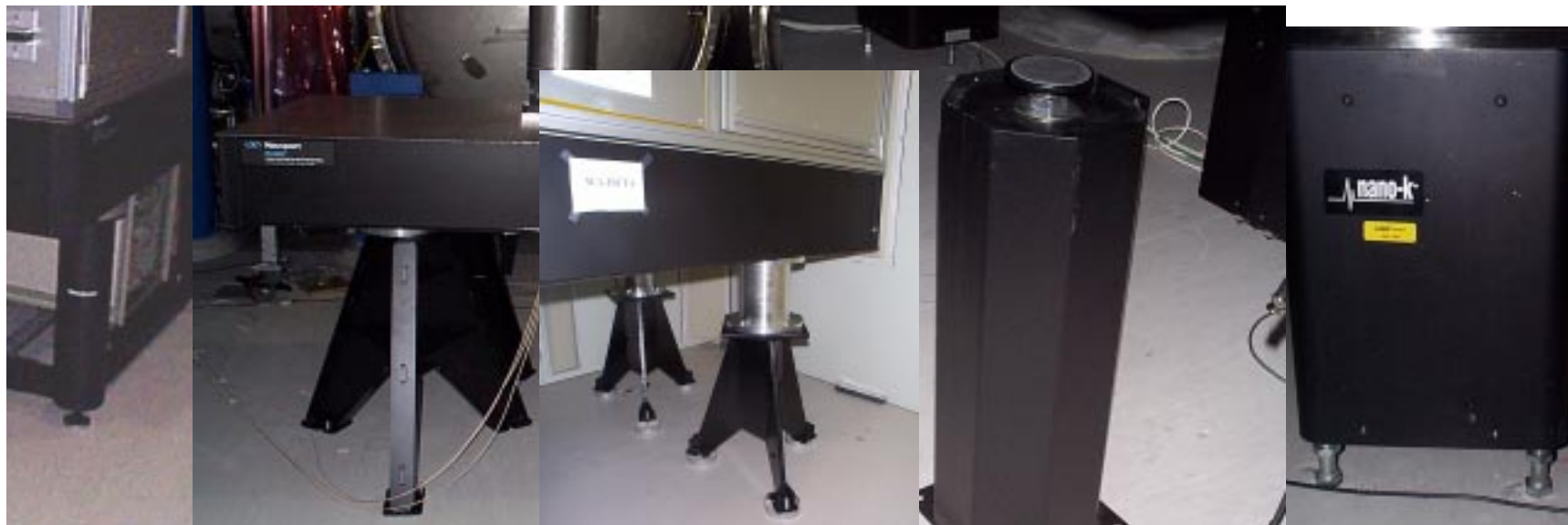
current

tall tripod

small tripod (damped)

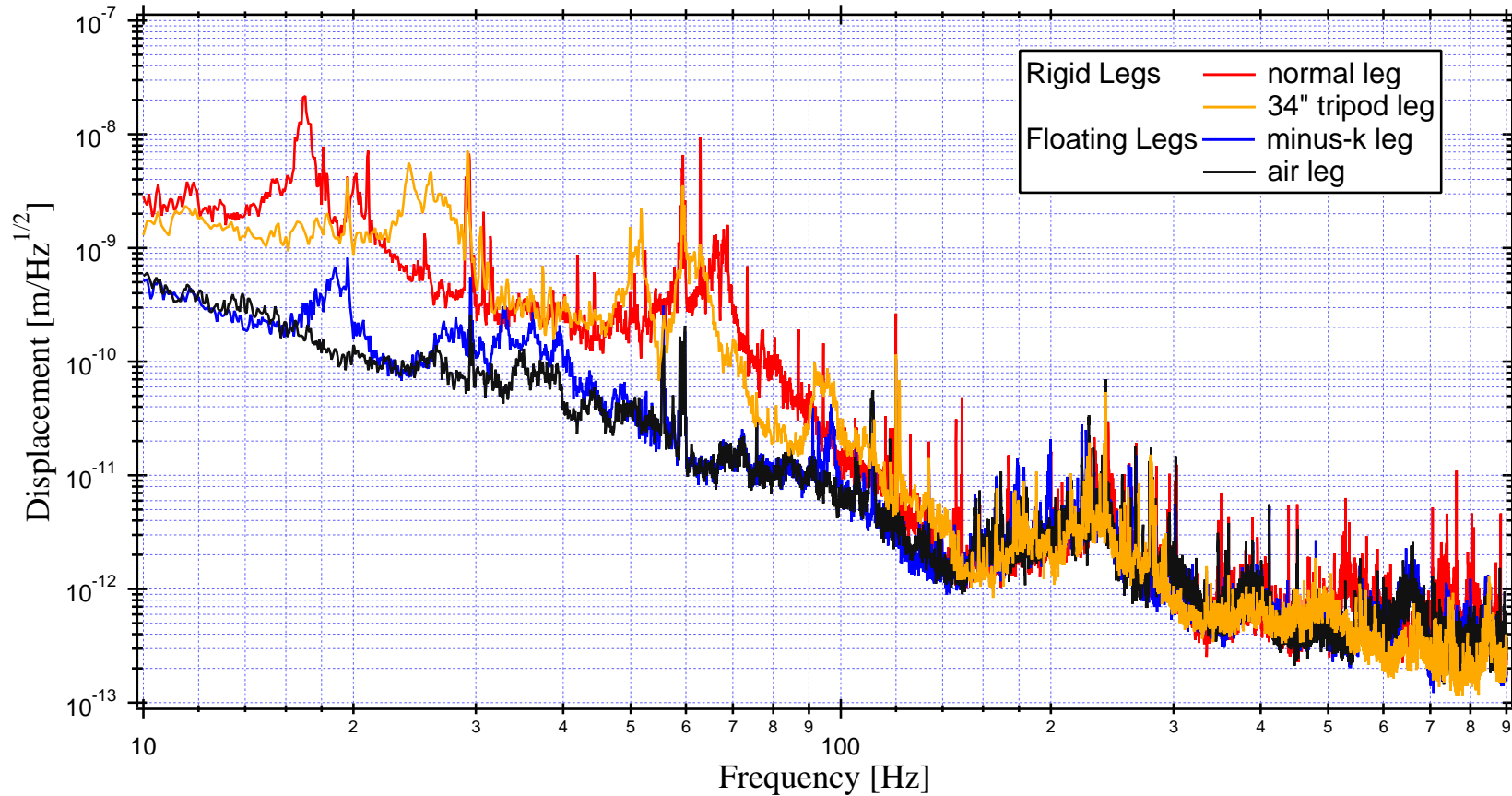
pneumatic

minus-k (spring)



COMPARISON OF RIGID AND FLOATING TABLE LEGS ON ISCT3

Red: current leg; Orange: tall tripod; Blue: minus-k; Black: pneumatic



Sum in quadrature of 3 accelerometer axes, converted to displacement