



**Figure 1:** Analysis of shallow S-wave velocity near the Reno/Tahoe Airport, using recordings of microtremor noise on 24-channel, 8 Hz seismic refraction equipment, and the p-tau and Fourier transformation technique. **A)** Summed transformation of ten 48-sec noise records on two 24-channel arrays, with well-established F-C picks and errors (white circles and bars). An F-K analysis would be spatially aliased below the dotted curve; but the p-tau transform can with care still yield useful phase velocities from this region. **B)** Dispersion curves for the picks, and matching fits. **C)** Fit shallow S-wave velocity models. With constraint at a 4 Hz minimum frequency, velocities are constrained to 75 m depth.