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Joseph D Lakey* (jlakey@nmsu.edu), Department of Mathematical Sciences, NMSU, Las Cruces, NM 88003-8001. *Time localized bandpass projections and an application to EEG*. Preliminary report.

A new time localized projection onto a subspace of band limited signals is presented and used to provide a definition of phase for a certain time-frequency localized signal component. This phase is then used to define a phase locking metric and applied to the study of EEG signals. Phase locking has been studied in the context of EEG signals for over 15 years. We compare the performance of our phase locking metric qualitatively with previously proposed metrics in this context. (Received January 13, 2014)