

ABSTRACT

There is provided a method for use by an echo canceller to detect an echo path change and adjust to the echo path change. The method comprises determining a first bulk delay using a SPARSE foreground adaptive filter; configuring the foreground adaptive filter to an open-loop mode; canceling the echo signal based on the first bulk delay using the foreground adaptive filter; determining a second bulk delay of the echo signal using a SPARSE background adaptive filter; configuring the foreground adaptive filter to a closed-loop mode and continuing to cancel the echo signal based on the first bulk delay; configuring the background adaptive filter to the open-loop mode; measuring echo cancellation performance of the foreground adaptive filter and the background adaptive filter; and changing parameters of the foreground adaptive filter if the echo cancellation performance of the background adaptive filter is better than the foreground adaptive filter.