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Rongwei Yang* (ryang@albany.edu), 10 Harmony Court, Cohoes, NY 12047. *On a pair of commuting isometries.*

Let V_1, V_2 be a pair of commuting isometries on a separable Hilbert space H . The so-called fringe operator F for the pair is defined on $H \ominus V_1H$ by $Fx = PV_2x$, where P is the orthogonal projection from H onto the wandering space $H \ominus V_1H$. We will see that much information about the pair is encoded in the fringe operator F . For instance, (V_1, V_2) is Fredholm if and only if F is Fredholm. Moreover, in this case $\text{index}(F) = \text{index}(V_1, V_2)$. (Received September 07, 2011)