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Oleksandr Karelin* (skarelin@uaeh.reduaeh.mx), Privada del Clavel 106, Campestre Villas del Alamo, 42184 Pachuca, Hidalgo, Mexico. *Relation between singular integral operators with a linear fractional reversing involution and a linear fractional preserving involution.*

We denote the Cauchy singular integral operator along a contour \mathcal{L} by $S_{\mathcal{L}}$. We construct a similarity transformation $F^{-1}AF = D$ between the singular integral operators A with the rotation operator W_T on the angle $2\pi/m$ on the unit circle T and a certain matrix characteristic singular integral operator without shifts. Consider now the operator $B = aI_R + bQ_R + cS_R + dQ_RS_R$, where R is the real axis,

$$(Q_R\varphi)(x) = \frac{\sqrt{\delta^2 + \beta}}{x - \delta} \varphi[\alpha(x)], \quad \alpha(x) = \frac{\delta x + \beta}{x - \delta}, \quad x \in R,$$

δ, β are real numbers, $\delta^2 + \beta > 0$. Acting by invertible operators from the right hand and left-hand side we reduce the singular integral with linear fractional involution B to a matrix characteristic singular integral operator without shift. We establish a relation between singular integral operators on the unit circle with a model orientation-reversing involution $(V\varphi)(t) = \varphi(1/t)$ and singular integral operators on the unit circle with a model orientation-preserving involution $(W\varphi)(t) = \varphi(-t)$. (Received February 24, 2004)