5007-60-351 **Ekaterina T. Kolkovska** and **Ehyter M. Martín González*** (8ermartin@cimat.mx). *Ruin probabilities and the time to ruin of a perturbed two-sided risk process.*

Let $\{Y(t), t \geq 0\}$ be the two-sided classical risk process defined by $Y(t) = u + ct + \sum_{i=1}^{N_1(t)} Y_{1i} - \sum_{j=1}^{N_2(t)} Y_{2j}$, where u and c are positive constants representing, respectively, initial capital and prime per time unit, and for $i = 1, 2$, Y_{i1} and Y_{i2} are sequences of independent and identically distributed random variables with a common distribution function $F_i(x)$ such that $F_i(0) = 0$. In addition, $N_i(t)$ are independent homogeneous Poisson processes. We consider the perturbed risk process $X(t) = Y(t) - \eta W_\alpha(t)$ for $\eta \geq 0$, where $W_\alpha(t)$ is an independent α-stable process without negative jumps, $\alpha \in (1, 2)$. We also assume that F_1 corresponds to either a mixture of exponential distributions, or an Erlang distribution. By approximating the α-stable process in path space, we obtain the Laplace transform of the Gerber-Shiu function of $X(t)$ in the case when the deterministic penalty function is identically 1. We also obtain asymptotic expressions for the expected Gerber-Shiu penalty function. These results extend previous work of Gerber and Shiu; Tsai and Willmot; Furrer; Albrecher, Gerber and Yang; Labbe, Sendov and Sendova. (Received May 13, 2013)