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Antoine Lejay, Ernesto Mordecki and Soledad Torres* (`soledad.torres@uv.cl`), Avenida Pedro Montt 2421, Valparaiso, Chile. *Statistical Inference for Skew Brownian process.*

We study the asymptotic behavior of the maximum likelihood estimator corresponding to the observation of a trajectory of a Skew Brownian motion, through a uniform time discretization. We characterize the speed of convergence and the limiting distribution when the step size goes to zero, which in this case are non-classical, under the null hypothesis of the Skew Brownian motion being an usual Brownian motion. This allows to design a test on the skewness parameter. We show that numerical simulations can be easily performed to estimate the skewness parameter. (Received January 20, 2015)