962-60-1236 **Jerzy Szulga*** (szulgje@mail.auburn.edu), Department of Mathematics, Auburn University, Auburn, AL 36849. *Integration with respect to fractional Brownian motion.* Preliminary report.

The fractional Brownian Motion was introduced by Kolmogorov in 1940s. The process itself and related processes proved useful in numerous applications in economics, science and engineering. We study the process as an integrator in the distributional sense. Although the full description of the class of integrable functions is unknown at this moment an ample functional Lorentz space seems to be a likely candidate. The current sufficient integrability conditions involve constraints on local oscillations of integrands. (Received October 02, 2000)