1106-47-1770 Victor Vinnikov* (vinnikov@math.bgu.ac.il), Department of Mathematics, Ben Gurion University of the Negev, Beer Sheva, Israel. Noncommutative Integrability. Preliminary report.
Applying the noncommutative difference-differential operator to a noncommutative function yields a new object called a noncommutative function of order 1 (the original function is then a noncommutative function of order 0). I will discuss (necessary and perhaps also sufficient) conditions for a noncommutative function of order 1 to be integrable, i.e., to be the result of applying the noncommutative difference-differential operator to a noncommutative function of order 0. This talk is based on a joint work with Dmitry Kaliuzhnyi-Verbovetskyi. (Received September 15, 2014)