1077-43-1236   **Azita Mayeli*** (`amayeli@qcc.cuny.edu`), Mathematics and Computer Science Department, S-245, 222-05 56th Avenue, Bayside, NY 11364. *Structure of shift-invariant subspaces for the Heisenberg group.* Preliminary report.

Let N be the Heisenberg group. In this talk we shall introduce the concept of shift-invariant subspaces in $L^2(N)$ and study their structure in terms of their associated range functions and fibers. As a consequence of this study, we shall show the characterization of frames and Riesz bases of these subspaces generated by shifts of a countable set of generators in terms of their behaviour on the fibers. We shall conclude this talk with addressing that the results are also extended to an advanced context, namely simply connected nilpotent Lie groups whose irreducible representations are in SI/Z - *square-integrability mod the center*.

This is a joint work with Bradley Currey and Vignon Oussa of St. Louis University. (Received September 18, 2011)