1011-46-120   **Alvaro Arias*** (`aarias@math.du.edu`), Department of Mathematics, University of Denver, 2360 South Gaylord Street, Denver, CO 80208. *Fock space techniques in tensor algebras of directed graphs.*

Recently Muhly and Solel developed a theory of tensor algebras over C^*-correspondences that extends the model theory of contractions in $B(H)$. The main examples are generated by Fock spaces, directed graphs, and analytic cross products. In this talk we will show that many results of tensor algebras of directed graphs, including dilations and commutant lifting theorems for $C_{\cdot 0}$ completely contractive representations, can be deduced from results on Fock spaces. One of the main tools we use is the Poisson kernels, which we define for arbitrary C^*-correspondences. The Fock space approach allows us to consider "weighted" graphs, where the dilation and commutant lifting theorems hold. Additionally we prove a rigidity result for submodules of the induced representations of directed graphs and we obtain projective resolutions of graph deformations. (Received August 20, 2005)