1114-46-182   **Michael Hartglass*** (`michael.hartglass@ucr.edu`), University of California, Riverside, Riverside, CA 92521. *Free product operator algebras associated to weighted graphs.*

I will present a canonical C* -algebra that is formed from a weighted undirected graph. Its K-theory will be computed, and necessary and sufficient conditions will be provided that ensure when this algebra is simple with unique trace. Following work of Shlyakhtenko and Skoufranis, as well as Mai, Speicher, and Weber, I will show that certain self-adjoint elements associated to loops in this algebra have no atoms in their spectral measure. This will be used to give an application to Wishart Matrices. (Received August 26, 2015)