1145-47-541   **Scott Mccullough*** (`sam@ufl.edu`). *Free bianalytic maps between spectraballs.* Preliminary report.

A free spectrahedron is the fully matricial analog of the notion of a spectrahedron from convex geometry. A spectraball is a fully matricial analog of a spectrahedron with circular symmetry. This talk will focus on recent progress - joint with Meric Augat, Bill Helton, Igor Klep, and Jurij Volcic - on characterizing free bianalytic mappings from one spectraball to another and from a spectraball to a free spectrahedron. The evidence indicates there are few such maps and they have a highly algebraic structure. (Received September 09, 2018)