Purvi Gupta* (prvgupta@umich.edu). *Rational and Polynomial Density on Compact Real Manifolds.*

Starting with the elementary fact that every continuous complex-valued function on the unit circle can be approximated by rational combinations of one fixed function and polynomial combinations of two fixed functions, we will discuss analogous approximation results for compact manifolds of higher dimensions. In particular, we will emphasize the symplectic and CR-methods involved in this problem. This is joint work with R. Shafikov. (Received July 23, 2017)