1125-32-1284 **Greg Knese*** (geknese@wustl.edu), One Brookings Drive, Department of Mathematics, Campus Box 1146, St. Louis, MO 63130. *Extreme points and saturated polynomials.* Preliminary report.

What are the extreme points in the convex set of analytic functions on the polydisk with positive real part (normalized to map 0 to 1)? In one variable this is well known and powerful (simply knowing the extreme points allows one to prove the Herglotz integral formula). In several variables no characterization is known and it is unlikely that a simple characterization exists. We shall focus on characterizing the extreme points in a special subclass of rational functions in two variables built out of polynomials with no zeros in the bidisc. Saturated polynomials, those with many zeros on the boundary of the bidisc, will play a key role. (Received September 15, 2016)