1108-14-530 **Daniel A Brake*** (danielthebrake@gmail.com). Applications of Real Algebraic Varieties. Numerical Algebraic Geometry frequently uses methods which compute over the complex numbers, frequently using probability-one arguments as a mathematical foundation. Computation of the real part of a variety is challenging, but rewarding, as applications of numerical algebraic geometry coming from engineering, math, and science are frequently interested only in real solutions. This talk will discuss such applications. (Received January 20, 2015)