

1096-35-1995 **Ryan Hynd*** (rhynd@math.upenn.edu), Philadelphia, PA 19104. *Introduction to the Euler-Poisson system.*

Understanding the dynamics of a system of interacting particles subject to pairwise conservative forces has remained a challenge in physics for many years. When the system has a large number of particles, it is possible to make a mean field approximation and derive a model equation for the distribution of particles. This model equation is known as the "Euler-Poisson" system and it will be subject of this talk. (Received September 17, 2013)