

Meeting: 1004, Bowling Green, Kentucky, SS 1A, Special Session on Numerical Analysis, Approximation, and Computational Complexity: Interdisciplinary Aspects

1004-41-163 **David Benko*** (dbenko2005@yahoo.com), Dept. of Mathematics, Western Kentucky University, Bowling Green, KY 42101. *Unbounded extremal measures*. Preliminary report.

The extremal measure (associated with a weight on the real line) is a unit measure which minimizes a certain double integral. It is well studied in Potential Theory. Think of the extremal measure as a set of electrons which have distributed themselves in such a way that they minimize the energy of the system. We will study the case when the support of the extremal measure is not bounded. Logarithmic Potential Theory has several applications both in mathematics and physics. We will give one in Approximation Theory. (Received January 24, 2005)