



## **Physics Colloquium**

Friday, November 26, 2010, 4:00 pm, PS 3046

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*On the variational approach to the  
determination of the energy spectrum  
of a charged particle in the presence of a  
finite dipole*

The problem of a particle in the presence of a finite dipole is an important one as this system is present in many processes that occur in chemistry and physics. Moreover, recent numerical calculations for the energy spectrum of the finite dipole + charged particle have established that there is a close connection between this system and the Efimov effect. A recently proposed variational approach offers a much simpler mathematical and computational technique for a solution to this problem. In this talk, I will provide a brief discussion of the theory and numerics behind this variational method.