1096-05-1632 **Chris McCarthy*** (cmccarthy@bmcc.cuny.edu) and **Johannes Familton**. *Virtual Pascal's Triangles, Poisson's Equation and the Method of Images.*

We apply a technique from the physics of electrostatics, the method of images, which uses virtual charges to solve Poisson's Equation $\nabla\Phi = \rho/\epsilon_0$ for Φ (the scalar electric potential), to solve the classic Ballot Problem from combinatorial probability. Our proof involves path counting using virtual Pascal Triangles, analogs of virtual charges from electrostatics, and a uniqueness theorem which is analogous to the uniqueness theorem for Poisson's Equation. (Received September 16, 2013)