

1041-82-238

**Mihai Ciucu\*** (mciucu@indiana.edu), Indiana University, Department of Mathematics, 831 East 3rd Street, Bloomington, IN 47405. *Dimer packings with gaps and electrostatics: Boundary interactions.*

In earlier work we determined the asymptotics of the correlation function of a collection of gaps in a sea of dimers. This turned out to be governed by the laws of two dimensional electrostatics. In this talk we consider dimer systems that cover a half-plane, and determine the interaction of gaps in this system with the boundary. We analyze the cases of constrained and free boundary conditions. They both lead to analogs of the method of images from electrostatics. (Received August 12, 2008)