

## **abstract**

Joint Princeton Mathematical Physics Seminar  
Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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A proposal for QED in half space is made. Starting from the well known principle of mirror charges in electrostatics, we formulate boundary conditions for electromagnetic fields and charge carrying currents both in the classical and the quantum context. Free classical and quantum fields are constructed, such that the required boundary conditions hold. Conservation laws are discussed. A variation of the principle of mirror charges is given, which leads to a dual set of boundary conditions and for which again free fields can be constructed.