Gregory Eskin\* (eskin@math.ucla.edu), 405 Hilgard ave., Los Angeles, CA 90095-1555. The inverse problems for the Schrodinger equations with time- dependent electromagnetic potentials and the Aharonov-Bohm effect.

We consider the inverse boundary value problems for the Schrodinger operator with time-dependent electromagnetic potentials in domains with obstacles. We relate our results to the Aharonov-Bohm effect caused by the magnetic and electric fluxes. (Received February 08, 2007)