Nicholas Maxwell
Curriculum Vitae

Departments of Mathematics and Physics
University of Houston, Houston, Texas

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Education

B.S. Physics, 2009, U. of H.

B.S. Mathematics, 2009, U. of H. (GPA: 3.4, last 60 hours)

Graduate School in Mathematics, 2009 - present, U. of H (GPA: 3.3).

Research

Graduate student, fall 2009 - present, under Dr. B. G. Bodmann & Dr. Donald Kouri

Solutions of the general acoustic wave equation via methods form stochastic differential equations.

Solutions of the general elastic wave equation via propagator based methods.

Undergraduate research assistant, fall 2008 - summer 2009, with Dr. Donald Kouri

Quantum mechanical eigenvalue problems applied to several original research projects.

Propagator-based approaches to solving the acoustic wave equation, for specific application in the seismic industry.

Main interests

Computation, signal analysis, computer science.

General interests

Electrodynamics, mathematical and statistical physics, quantum theory.
Functional analysis, linear algebra, P.D.Es, electrical engineering, programming.

Work History

Erdos Miller, July 2009 - present

Research consultant: Applied physics and signal analysis.

ION Geophysical, May 2005 - sept. 2008

Engineering intern.

CGG Veritas, 2006 - 2008

Contracted engineering and drafting work.

Precision Tube Technology, 2004 - 2005

Q.C. tech.

Publications

D. J. Kouri, T. Markovich, N. Maxwell, B. G. Bodmann, The Heisenberg-Weyl Algebra on the Circle and a Related Quantum Mechanical Model for Hindered Rotation, *J. Phys. Chem. A 113, 7698-7705*, (2009).

D. J. Kouri, T. Markovich, N. Maxwell, E. Bittner, Supersymmetric Quantum Mechanics for a General Family of Anharmonic Oscillator Models, *J. Phys. Chem. A*, submitted (2009).