Curriculum Vitae
Timothy Scott Hamilton

University of Pittsburgh, Department of Physics and Astronomy
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Education

BS, 1994, Rhodes College (cum laude, Phi Beta Kappa, Mortar Board, Sigma Pi Sigma)
MS, 1996, University of Pittsburgh
PhD candidate in physics (specializing in astrophysics), University of Pittsburgh, degree expected in spring, 2001
Dissertation title: "Host Galaxies of QSOs"
Advisors: David Turnshek (University of Pittsburgh) and Stefano Casertano (Space Telescope Science Institute)

Scholarships, Fellowships, and Awards

Undergraduate

Cambridge Scholarship of Rhodes College, 1990-94
Alcoa Scholarship, 1990-94
National Merit Scholarship, 1990-94
Tennessee Academic Scholars Program Scholarship, 1990-94
Tennessee Honors Program Scholarship, 1990
Tennessee Dept. of Education Robert C. Byrd Scholarship, 1990
Reserve Champion Scholarship, Senior Physical Div. of the Southern Appalachian Science & Engineering Fair, 1990

Graduate

Hubble Space Telescope Graduate Fellowship, July 1997-July 1998
Director's Discretionary Research Fund grant (competitively awarded at STScI), July 1998-August, 2000
Pennsylvania Space Grant Consortium Fellowship, 2000

Employment

Teaching Assistant, University of Pittsburgh, Department of Physics & Astronomy, 1994-97
Research Assistant, Space Telescope Science Institute, July 1997-August 2000
Instructor of Astronomy, McKendree School (Baltimore), 1998-2000
Teaching Fellow, University of Pittsburgh, Department of Physics & Astronomy, 2000-01

Astronomical Software Experience

IDL —I have made extensive use of IDL, including writing a large set of my own image analysis programs. Some of my programs perform multi-parameter fits of models to images, while convolving the models with a point spread function.

SM (“Super Mongo”) —I use this for plotting and for statistical calculations.
FORTRAN —I have used FORTRAN for a large particle physics project (1995-6) for designing a particle detector now installed at Jefferson National Labs.
C —I have created Monte Carlo simulations of particle reactions in C for the above mentioned project.
HTML —I have made web pages for reporting scientific results to my collaborators.
IRAF —I use IRAF for about half of my image processing and for examining the isophotes of QSOs and host galaxies.
Tiny TIM —I create all of my artificial point-spread functions with Tiny TIM and am familiar with manipulating it to adjust the telescope focus.
UNIX/Linux —I work on UNIX and Linux-based systems and have written UNIX scripts to automate some steps in my image processing.

Membership in Professional Societies

American Astronomical Society, 1999-present

Publications

Hamilton, T. S. 1994, ”Using Neural Networks to Classify Nuclear Events,” Rhodes Science Journal.

”Host Galaxies of QSOs,” Hamilton, T.S., Casertano, S., and Turnshek, D.A. 1999, American Astronomical Society Meeting No. 195, #17.07.

”The Luminosity Function of QSO Host Galaxies,” Hamilton, T.S. Turnshek, D.A., and Casertano, S. 2000, American Astronomical Society Meeting No. 197, #109.02.

”The Luminosity Function of QSO Host Galaxies,” Hamilton, T.S., Casertano, S., and Turnshek, D.A. 2000, submitted to the Astrophysical Journal. (astro-ph/0011255)