

CURRICULUM VITAE

Justin H. Howell

SSC

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EDUCATION

University of California, Santa Cruz 1998 - 2004

Ph.D., Astronomy & Astrophysics, December 2004

Thesis: Star Formation Histories of Nearby Elliptical Galaxies

Advisor: Dr. Puragra Guhathakurta

Columbia University 1996 - 1998

California Institute of Technology 1992 - 1996

B.S., Astronomy, June 1996

PROJECT SUPPORT

Spitzer IRS Instrument Support Team, SSC 2007-present

Responsible for improving the wavelength calibration and supporting peak-up imaging by improving the photometric calibration, updating PRFs, and investigating peak-up failures and false positives in each observing campaign.

RESEARCH EXPERIENCE

Staff Scientist, SSC 2007-present

Part of the Great Observatories All-sky LIRG Survey (GOALS) team, analyzing the GALEX data and delivering the first set of GOALS Spitzer Legacy data products to IRSA.

Postdoc, IPAC 2005-2007

Part of the GOALS team analyzing Spitzer IRAC, MIPS, and IRS data. Responsible for IRAC and MIPS data reduction for the Kenney et al. GO-3 project "Spitzer Observations of Environmental Effects on Virgo Cluster Galaxies".

Graduate Student Researcher, UC Santa Cruz 1998-2004

Thesis research on spectroscopic ages, metallicities, and abundance ratios of a complete sample of nearby early-type galaxies and a small sample of possible merger remnants.

Previous projects include studies of stellar dynamics and evolution in globular clusters.

Graduate Student Researcher, Columbia University 1996-1998

Spectroscopic analysis of stars in the Galactic bulge, working with Prof. R. Michael Rich.

Summer Undergraduate Research Fellow, Caltech 1995

Infrared photometry of high redshift radio galaxies, working with Dr. Peter Eisenhardt (JPL).

RESEARCH INTERESTS

Infrared tracers of star formation and AGN activity
Formation and evolution of galaxies
Stellar dynamics and evolution in globular clusters

TECHNICAL SKILLS

Optical imaging and spectroscopic observing: Lick, MDM, & CASLEO Observatories
Data analysis: IRAF, Skyview, mopex, SPICE, CUBISM, SMART, PAHFIT, daophot, GeRT, IDP3, IDL, Galfit
Programming: Fortran, shell scripting (awk, sed), IRAF cl coding, IDL, some Python
Technical graphics and statistics: SM, IDL, wip, R
Publication: TeX/LaTeX, MS Office, Open Office, Adobe Illustrator & Photoshop
Editing: Referee for one journal article

SUCCESSFUL PROPOSALS (bold: PI)

GALEX Cycle 5 2009
“UV Properties of a Complete Sample of Luminous Infrared Galaxies in the Local Universe”
Spitzer GO-3 GOALS Legacy 2006
“A Spitzer Spectroscopic Survey of a Complete Sample of Luminous Infrared Galaxies in the Local Universe.”
Lick Observatory, 3 m telescope 2000–2004
“Star Formation Histories of Nearby Elliptical Galaxies”

TEACHING EXPERIENCE

Teaching Assistant, Dept. of Astronomy & Astrophysics, UC Santa Cruz 1998, 1999, 2004
Teaching Assistant, Dept. of Astronomy, Columbia University 1996-1998

PREVIOUS AWARDS

ARCS Scholar 2002-2003
Caltech Summer Undergraduate Research Fellow 1995
National Merit Scholar 1992
Planetary Society New Millennium Scholar 1992