

Curriculum Vitae
JUN-HWAN CHOI

Postdoctoral Researcher, Department of Physics and Astronomy, University of Nevada at Las Vegas

Phone : +1(702)895-5840

Fax : +1(702) 895-0804

E-Mail : jhchoi@physics.unlv.edu

Address: Department of Physics & Astronomy
University of Nevada, Las Vegas
4505 Maryland Parkway
Las Vegas, NV 89154-4002

Education

Ph.D. in Astronomy, University of Massachusetts at Amherst (MA, USA), 2007

Thesis : The Dynamics of Satellite and Dark Matter Halo Interactions on Galaxy Formation and Evolution

Advisers : Prof. Martin D. Weinberg & Prof. Neal Katz

M.S. in Astronomy, Yonsei University (Seoul, Korea), 1999

M.S. thesis : The Study of Globular Cluster with Luminosity Function

Advisers : Prof. Young-Wook Lee & Prof. Yong-Cheol Kim

B.S. in Astronomy (minor in Physics), Yonsei University (Seoul, Korea), 1997

Areas of interests

Cosmology, Galaxy formation and evolution, Galactic dynamics, Numerical Astrophysics

Awards

2008-2009 TeraGrid Roaming startup allocations for the Texas Advanced Computing Center : 50,000SU + 30,000SU (supplement)

2009-2010 TeraGrid Resource Allocations Committee for the TexasAdvanced Computing Center : 600,000SM

2009 AAS International Travel Grant \$1134.98 from NSF

2001 Five College Astronomy Graduate Research Fellowship

1993, 1996 Yonsei Scholarship, Yonsei University

Experiences

Research

- Postdoctoral Researcher, Department of Physics and Astronomy, UNLV, 2007 -
- Research Assistant, Department of Astronomy, University of Massachusetts, 2000 - 2007
- Research Assistant, Center for Space Astrophysics, Yonsei University, 1999

Teachings

- Organizer for Astronomy Journal Club, Department of Physics and Astronomy, UNLV, 2008 - 2009
- Teaching Assistant, Department of Astronomy, University of Massachusetts, 1999-2001
- Teaching Assistant, Department of Astronomy, Yonsei University, 1997-1998

Computation

- Assistant Administrate for Beowulf cluster in Department of Astronomy at University of Massachusetts (2002)

- Experience with FORTRAN, C/C++, IDL, Perl, MATLAB programming
- Expertise in implementing and analyzing both N-body galactic dynamics simulation and N-body/hydrodynamics cosmological simulation.

Professional Services

- Members of Korean Space Science Society (1998 -)
- Members of American Astronomical Society (2007 -)

Referee Contacts

Prof. Kentaro Nagamine
Department of Physics & Astronomy
University of Nevada
Las Vegas, NV 89154
kn@physics.unlv.edu
(702) 895-3485

Prof. Martin D. Weinberg
Astronomy Department
University of Massachusetts
Amherst, MA 01003
weinberg@astro.umass.edu
(413)545-3821

Prof. Neal Katz
Astronomy Department
University of Massachusetts
Amherst, MA 01003
nsk@kaka.astro.umass.edu
(413)545-2085

Publications

Referred Publications

“Erratum: Effects of metal enrichment and metal cooling in galaxy growth and cosmic star formation history”

J.-H. Choi & K. Nagamine 2009, MNRAS, 395, 1776

“Effects of metal enrichment and metal cooling in galaxy growth and cosmic star formation history”

J.-H. Choi & K. Nagamine 2009, MNRAS, 393, 1595

“The dynamics of tidal tails for massive satellites”

J.-H. Choi, M. D. Weinberg & N. Katz 2007, MNRAS, 381, 987

“Dark matter halo response to the disk growth”

J.-H. Choi, Y. Lu, H. Mo & M. D. Weinberg 2006, MNRAS, 372, 1869

Non-Referred Publications

“The Growth of Galaxies in Cosmological simulation”

J.-H. Choi, N. Katz, C. Murali, D. H. Weinberg, R. Davé & L. Hernquist, 2002, in ASP Conference Series, vol. 283, “*A New Era in Cosmology*”, ed. N. Metcalfe & T. Shanks (San Francisco:ASP), 343

Submitted Papers

“Effects of cosmological parameters and star formation models on the cosmic star formation history”

J.-H. Choi & K. Nagamine 2009, submitted to MNRAS (arXiv:0909.5425)

“The dynamics of satellite disruption in cold dark matter haloes”

J.-H. Choi, M. D. Weinberg & N. Katz 2009, accepted for publication in MNRAS (arXiv:0812.0009)

Papers in Preparation

“Dynamical effect of the satellite on dark matter halo structure”

J.-H. Choi, M. D. Weinberg & N. Katz 2009

“Effect of UV background and local stellar radiation on the HI column density distribution”

K. Nagamine, **J.-H. Choi** & H. Yajima 2009

“Escape fraction of ionizing photons from high-redshift galaxies in cosmological SPH simulations”

H. Yajima, **J.-H. Choi** & K. Nagamine 2009

“Multiphase and variable wind speed Galactic Outflows”

J.-H. Choi & K. Nagamine

Talks

SFR@50: Filling the Cosmos with Stars at ABBAZIA DI SPINETO SARTEANO, ITALY

“Cosmic star formation rate in LCDM cosmological simulation”

Lorentz center workshop in Leiden Netherlands : The Chemical enrichment of the Intergalactic Medium

“The effect of multiphase galactic winds on galaxy formation”

Sejong University (Korea), April 2009

“Cosmic star formation history in LCDM cosmological simulation”

American Astronomical Society, AAS Meeting 213, 344.02

“Effects of metal enrichment and metal cooling in galaxy growth and cosmic star formation history”

KITP Conference: Back to the Galaxy II

“The Dynamics of Satellite Disruptions in Cold Dark Matter Halo”

American Astronomical Society, AAS Meeting 211, 126.02

“The Dynamics of Satellite and Dark Matter Halo Interactions on Galaxy Formation and Evolution”

Yonsei University (Korea), June 2006

“Dark matter halo response on the disk growth”

University of Massachusetts Research presentation, February 2002

“Noise-driven evolution of galaxy and galactic halo by dark matter halo substructure ”

Yonsei University (Korea), June 2001

“The Growth of Galaxies in Cosmological Simulations”

University of Massachusetts Research presentation, February 2001

“The Effects of Environment on Galaxy Assembly ”

Dozens of Department Journal Club Talks about various topics in astrophysics including first star, semi-analytic model in galaxy formation, CMB anisotropy, weak lensing, SDSS galaxy clustering measurement, and so on.