Curriculum Vitae

Juhan Kim

PERSONAL

Date of Birth: June 6th, 1970
Citizenship: Korean (Republic of Korea)
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Education

Mar 99 – Aug 03	Ph. D., Department of Astronomy, Seoul National University, Korea
Mar 93 – Feb 98	M. SC., Department of Astronomy, Seoul National University, Korea
Mar 90 – Feb 93	B. Sc., Department of Astronomy, Seoul National University, Korea

Career

Sep 08 – Now	Visiting Post-doctor to Canadian Institute for Theoretical Astrophysics
Nov 04 – Aug 08	Research Fellow, Korea Institute for Advanced Study
Sep 03 – Aug 04	Postdoctoral Fellowship, Korea Astronomical Observatory
Aug 00 – Feb 01	Visiting Student to Canadian Institute for Theoretical Astrophysics

Research Interests and Skills

Research fields: Cosmology and the large-scale structures using N-body simulations

Research interests: topology of cosmic objects, two-point correlation, halo & subhalo internal statistics, galaxy formation using simulated subhalos, & redshifted 21cm line from the Dark Age

Simulation experience: three 4120^3-particle and ten 1024^3-particle simulations with the GOTPM code (a hybrid combining the PM and Tree schemes) on the Linux Beowulf and IBM SP3

Computational Skills & **Background experience**

1. Programming languages: high level of C and Fortran77 with OpenMP and MPI packages & GPU language (CUDA) and basic level of Fortran90
2. Experience of OS's: Solaris, Linux, Mac, Windows, AIX, and IRIX on computers from laptops to massive supercomputers
3. One-year computer management of the Solaris systems, IRIX, and Linux systems in the Department of Astronomy at Seoul National University

Juhan Kim – Publication List

BIBLIOGRAPHY

Jounal Abbreviations: ApJ – Astrophysical Journal; MNRAS – Monthly Notice of Royal Astronomical Society

Refereed Publications

1. **Kim, J.**, Park, C., & Choi, Y.-Y. 2008, ApJ, 683, 123
   A Subhalo-Galaxy Correspondence Model of Galaxy Biasing
2. Cervantes-Sodi, B., Hernandez, X., Park, C., & **Kim, J.** 2008, MNRAS, 388, 863
   Environment and mass dependencies of galactic λ spin parameter: cosmological simulations and observed galaxies compared
3. Gott, J.R. III, Hambrick, D.C., Vogeley, M.S., **Kim, J.**, Park, C., Choi, Y.-Y., Cen, R., Ostriker, J.P., & Nagamine, K. 2007, ApJ, 675, 16
   Topology of structure in the Sloan Digital Sky Survey: model testing
4. **Kim, J.** & Park, C. 2006, ApJ, 639, 600
   A New Halo Finding Method for N-body Simulations
5. Park, C., Choi, Y.-Y., Vogeley, M.S., Gott, J.R. III, **Kim, J**., Hikage, C., Matsubara, T., Park, M.-G. Suto, Y., & Weinberg, D.H. 2005, ApJ, 633, 11
   Topology Analysis of the Sloan Digitial Sky Survey. I. Scale and Luminosity Dependence
6. Park, C., **Kim, J**., & Gott, J.R. III 2005, ApJ, 633, 1
   Effects of Gravitational Evolution, Biasing, and Redshift Space Distortion on Topology
7. Dubinski, J., **Kim, J**., Park, C., & Humble, C.B. 2003, New Astronomy, 9, 111,
   GOTPM: a parallel hybrid particle-mesh treecode
8. Park, C. & **Kim, J.** 1998, ApJ, 501, 23
   Diffuse Dark and Bright Objects in the Hubble Deep Field
9. Park, C. & **Kim, J.** 1997, Journal of Korean Astronomical Society, 30, 83,
   Galaxy Formation in the Hubble Deep Field

Non-Refereed Publications

1. Park, C. & **Kim, J.** 2007, Revista Mexicanna de Astronomiay Astrofisica, 28, 93
   The Hubble-Depth Survey

Preprints

1. **Kim, J.,** Park, C., Gott, J.R., & Dubinski, J. 2008, submitted to ApJ, astro-ph/0812.1392
   The Horizon Run N-body Simulation: Baryon Acoustic Oscillations and Topology of Large Scale Structure of the Universe
2. Gott, J.R., Choi, Y.-Y., Park, C., & **Kim, J.** 2008, submitted to ApJ Letters, astro-ph/0812.1406
   3D Genus Topology of Luminous Red Galaxies

Talks & Conferences

1. **Kim, J.**, Park, C., Choi, Y.-Y. 2006, In Cosmic Void Workshop, Aspen,
   A Simple Method to Build Mock Galaxies
2. **Kim, J.**, Gott, J.R. III, Hambrick, D.C., Vogeley, M.S., Park, C., Choi, Y.-Y., Cen, R., Ostriker, J.P., & Nagamine 2006, In SDSS Collaboration Meeting, Seoul,
   Topology of Structure in SDSS: Model test
3. **Kim, J.** & Park, C. 2007, In the 9th High Performance Computing International Conference & Exhibition, Seoul,
   Cosmological N-body Simulations