**Curriculum Vitae**

**Juhan Kim**

**PERSONAL**

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| Date of Birth: June 6th, 1970  Citizenship: Korean (Republic of Korea)  Address: Office: #1312, Canadian Institute for Theoretical Astrophysics, University of Toronto  60 St. George Street, Toronto, Ontario, M5S 3H8, Canada | Phone: 1-416-978-8494  Fax: 1-416-978-3921  Email: [kjhan@cita.utoronto.ca](mailto:kjhan@cita.utoronto.ca)  Homepage: <http://astro.kias.re.kr/~kjhan/> |

**Education**

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| 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**

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| 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 41203-particle and ten 10243-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*

1. Cervantes-Sodi, B., Hernandez, X., Park, C., & **Kim, J.** 2008, MNRAS, 388, 863

*Environment and mass dependencies of galactic  spin parameter: cosmological simulations and observed galaxies compared*

1. 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*

1. **Kim, J.** & Park, C. 2006, ApJ, 639, 600

*A New Halo Finding Method for N-body Simulations*

1. 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*

1. Park, C., **Kim, J**., & Gott, J.R. III 2005, ApJ, 633, 1

*Effects of Gravitational Evolution, Biasing, and Redshift Space Distortion on Topology*

1. Dubinski, J., **Kim, J**., Park, C., & Humble, C.B. 2003, New Astronomy, 9, 111,

*GOTPM: a parallel hybrid particle-mesh treecode*

1. Park, C. & **Kim, J.** 1998, ApJ, 501, 23

*Diffuse Dark and Bright Objects in the Hubble Deep Field*

1. 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*

1. 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*

1. **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*

1. **Kim, J.** & Park, C. 2007, In the 9th High Performance Computing International Conference & Exhibition, Seoul,

*Cosmological N-body Simulations*