

Jeong-Gyu Kim

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Education

Ph.D. candidate in Astronomy, Seoul National University, Korea, 2012 – *present*
Advisor: Prof. Woong-Tae Kim

Visiting Student Research Collaborator, Princeton University, Oct–Nov 2014
Mentor: Prof. Eve Ostriker

M.S. in Astronomy, Seoul National University, Korea, 2012

B.S. in Astronomy, Graduation with Honors, Seoul National University, Korea, 2010

Research

Refereed Journal Publications

Kim, J.-G., Kim, W.-T., & Ostriker, E. C. 2016, *Disruption of Molecular Clouds by Expansion of Dusty H II Regions*, ApJ, 819, 137

Kim, J.-G., Kim, W.-T. 2014, *Instability of Magnetized Ionization Fronts Surrounding H II regions*, ApJ, 797, 135

Kim, W.-T., Kim, Y., & **Kim, J.-G.** 2014, *Nature of Wiggle Instability of Galactic Spiral Shocks*, ApJ, 789, 68

Kim, J.-G., Kim, W.-T. 2013, *Instability of Evaporation Fronts in the Interstellar Medium*, ApJ, 779, 48

Kim, J.-G., Kim, W.-T., Seo Y. M., & Hong, S. S. 2012, *Gravitational Instability of Rotating, Pressure-Confinned, Polytropic Gas Disks with Vertical Stratification*, ApJ, 761, 131

Papers in Preparation

Kim, J.-G., Kim, W.-T., & Ostriker, E. C. 2015, *Disruption of Molecular Clouds by Expansion of Dusty H II Regions*

Fields of Interest

Dynamics of H II regions and radiative feedback from star formation

Structure and dynamics of phase transition layers in the interstellar medium

Dynamics of gas flow through galactic spiral arms

Teaching Assistance

Man and the Universe (non-major course), Teaching Assistant for Prof. Jonghak Woo, Fall 2012,

Observational Astronomy, Teaching Assistant for Prof. Jonghak Woo, Spring 2012.

Scholarships & Fellowships

National Junior Research Fellowship, 2014–
 SNU Fellowship for the Next Generation of Basic Research, 2013–2014
 SNU Development Fund (Inha Kim) Scholarship, Spring 2013
 Scholarship for Superior Academic Performance, Fall 2012
 Lotte Scholarship, Lotte Foundation, Korea, 2010–2011
 National Science & Technology Scholarship, 2003–2004, 2008–2009

Conferences and Workshops (Selected)

Seminar Talk, *Disruption of Molecular Clouds by Expansion of Dusty HII Regions*, Star Formation/ISM Rendezvous, Princeton University, Oct 28, 2015
 Contributed Talk, *Expansion of Dusty H II Regions and Its Impact on Disruption of Molecular Clouds*, 2015 Korean Astronomical Society Spring Meeting, Seoul, Korea, Apr 17, 2015
 Seminar Talk, *Instability of Evaporative Layers in the Interstellar Medium*, Korean Numerical Astrophysics Group Meeting, Daejeon, Korea, Jan 23, 2015
 Poster, *Instability of Magnetized Ionization Fronts*, 225th AAS Meeting, Seattle, USA, Jan 4–8, 2015
 Seminar Talk, *Instability of Evaporative Layers in the Interstellar Medium*, Star Formation/ISM Rendezvous, Princeton University, Nov 5, 2014
 Poster, *Instability of Magnetized Ionization Fronts*, 12th Asia-Pacific Regional IAU Meeting, Daejeon, Korea, Aug 18–22, 2014
 Attended, KITP program: *Gravity's Loyal Opposition: The Physics of Star Formation Feedback*, University of California, Santa Barbara, USA, Jun 16–Jul 3, 2014
 Poster, *Instability of Evaporation Fronts in the ISM*, Physical Processes in the ISM, MPE, Garching, Germany, Oct 21–25, 2013
 Attended, International Summer School on AstroComputing 2013: *Star & Planet Formation*, University of California, Santa Cruz, USA, Jul 22–Aug 9, 2013
 Contributed Talk, *Instability of Evaporation Fronts in the Interstellar Medium*, 2013 Korean Astronomical Society Spring Meeting, Daecheon, Korea, Apr 11, 2013
 Attended, *Magnetic Fields in Astrophysics*, Asia Pacific Center for Theoretical Physics, Pohang, Korea, Nov 19–22, 2012
 Seminar Talk, *Gravitational Instability of Rotating, Vertically-Stratified, Polytopic Disks*, Korean Numerical Astrophysics Group Meeting, Daejeon, Korea, Nov 4, 2011
 Poster, *Gravitational Instability of Rotating, Vertically-Stratified, Polytopic Disks*, 2011 Korean Astronomical Society Fall Meeting, Jeju, Korea, Oct 5–7, 2011
 Attended, *2010 International School on Numerical Relativity and Gravitational Waves*, Asia Pacific Center for Theoretical Physics, Pohang, Korea, Jul 26–30, 2010

Computational Experience

Programming skills: C/C++, python, IDL, bash, git, gdb, DDT, VisIt
 Numerical Simulations: Athena/Athena++

Miscellaneous

Departmental Service:

SNU Astronomy Journal Club Coordinator, 2010–2013

Served as a part-time lecturer in *An Introduction to IDL Programming for Undergraduates*, Winter 2014