

# Jeong-Gyu Kim

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## Education

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

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

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

## Research

### Refereed Journal Publication

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

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

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. 2014, *Instability of Magnetized Ionization Fronts Surrounding H II regions*, ApJ accepted

### Papers in Preparation

**Kim, J.-G.**, Kim, W.-T., Ostriker, E. C. 2015, *Dynamical Expansion of Dusty H II regions*

### Fields of Interest

Structure and Dynamics of Phase Transition Layers in the Interstellar Medium  
Physics of Star Formation Feedback

## Teaching Assistance

Man and the Universe, Teaching Assistant for Prof. Jonghak Woo, Spring 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

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, 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, *ISSAC 2013: Star & Planet Formation*, University of California, Santa Cruz, 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 Experiences

Language: IDL, C, bash, python

Program: 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