

Jeong-Gyu Kim | List of Publications

Publications

Journal Publications – [ADS Search](#).....

** Most important publications ; # Led by a student under direct supervision

13. *Stellar Wind Bubbles in Turbulent Clouds: A Fractal Theory Validated with Hydrodynamic Simulations*
Lancaster, L., Ostriker, E. C., **Kim, J.-G.**, & Kim, C.-G., submitted to ApJ 12/2020
12. ** *Star Formation Efficiency and Dispersal of Giant Molecular Clouds with UV Radiation Feedback: Dependence on Gravitational Boundedness and Magnetic Fields*
Kim, J.-G., Ostriker, E. C., & Filippova, N. arxiv:2011.07772 (submitted to ApJ 10/2020)
11. *The environmental dependence of the X_{CO} conversion factor*
Gong, M., Ostriker, E. C., Kim, C.-G., & **Kim, J.-G.** 2020, ApJ, 903, 142
10. *Factories of CO-dark gas: molecular clouds with limited star formation efficiencies by far-ultraviolet feedback*
Inoguchi, M., Hosokawa, T., Mineshige, S., & **Kim, J.-G.** 2020, MNRAS, 497, 5061I
9. # *Diffuse Ionized Gas in Simulations of Multiphase, Star-forming Galactic Disks*
Kado-Fong, E., **Kim, J.-G.**, Ostriker, E. C., & Kim, C.-G. 2020, ApJ, 897, 143
8. *Modeling UV Radiative Feedback from Massive Stars: III. Escape of Radiation from Star-Forming Giant Molecular Clouds*
Kim, J.-G., Kim, W.-T., & Ostriker, E. C. 2019, ApJ, 883, 102
7. ** *Modeling UV Radiative Feedback from Massive Stars: II. Dispersal of Star-Forming Giant Molecular Clouds by Photoionization and Radiation Pressure*
Kim, J.-G., Kim, W.-T., & Ostriker, E. C. 2018, ApJ, 859, 68
6. *Modeling UV Radiative Feedback from Massive Stars: I. Implementation of Adaptive Ray Tracing Method and Tests*
Kim, J.-G., Kim, W.-T., Ostriker, E. C., & Skinner A. M. 2017, ApJ, 851, 93
5. *Disruption of Molecular Clouds by Expansion of Dusty H II Regions*
Kim, J.-G., Kim, W.-T., & Ostriker, E. C. 2016, ApJ, 819, 137
4. *Instability of Magnetized Ionization Fronts Surrounding H II regions*
Kim, J.-G., Kim, W.-T. 2014, ApJ, 797, 135
3. *Nature of Wiggle Instability of Galactic Spiral Shocks*
Kim, W.-T., Kim, Y., & **Kim, J.-G.** 2014, ApJ, 789, 68
2. *Instability of Evaporation Fronts in the Interstellar Medium*
Kim, J.-G., Kim, W.-T. 2013, ApJ, 779, 48

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

Papers in Preparation.....

Implementation of a Module for Heating and Cooling in the ISM Coupled with Radiative Transfer
Kim, J.-G., Gong, M., Kim, C.-G., & Ostriker, E. C. 2021, in preparation

Molecular Cloud Destruction Controlled by Radiation, Winds, and Supernovae Feedback
Kim, J.-G., Lancaster, L., Kim, C.-G., & Ostriker, E. C. 2021, in preparation

r-process Enrichment During the Formation of a Globular Cluster: Case of M15
Hotokezaka, K., **Kim, J.-G.**, Beniamini, P., & Cen, R. 2021, in preparation