

Publications

Refereed Publications:

1. M. J. Cai and F. H. Shu, “Self-Similar Collapse of Singular Isothermal Spheres and Black Hole Formation”, *to appear in ApJ* (2005).
2. M. J. Cai and F. H. Shu, “Nonaxisymmetric Neutral Modes in Relativistic Disks”, *Astrophys. J.* **611**, 1054 (2004).
3. M. J. Cai and F. H. Shu, “Non-axisymmetric Modes in Relativistic Singular Isothermal Disks”, *Progress of Theoretical Physics Supplement*, **155**, 317 (2004).
4. M. J. Cai and F. H. Shu, “Relativistic Singular Isothermal Toroids”, *Astrophys. J.* **583**, 391 (2003).
5. M. J. Cai and F. H. Shu, “Relativistic Self-Similar Disks”, *Astrophys. J.* **567**, 447 (2002).
6. M. J. Cai and M. K. Gaillard, “Remarks on ‘Inflation and flat directions in Modular Invariant Superstring Effective Theories’ ”, *Phys. Rev. D*, **62**, 047901 (2000).
7. J. Cai, T.D. Shoppa, and K. Langanke, “TDHF study of the He^+ collision on atomic He targets at the ^8Be ground state energy”, *Zeitschrift für Physik*, **A356**, 399 (1997).
8. T. A. Tombrello, K. D. Shang, J. Cai, M. H. Shapiro and J. Fine, “A molecular dynamics study of collisional excitation/deexcitation at ion-bombarded surfaces”, *Nucl. Inst. and Meth. in Physics Res.*, **B108**, 51 (1996).

Conference Proceedings:

1. M. J. Cai, “Self-Similar Collapse of Relativistic Singular Isothermal Spheres”, *The interplay among Black Holes, Stars and ISM in Galactic Nuclei*, IAU Symposium No. 222, (2004).
2. M. J. Cai, “Nonaxisymmetric Neutral Modes”, *Stellar-Mass, Intermediate-Mass, and Supermassive Black Holes*, (2003).
3. P. R. Brady and M. J. Cai, “Critical phenomena in gravitational collapse”, *Proceedings of the Eighth Marcel Grossmann Meetings on General Relativity*, **A689** (1999).

Other:

1. F. H. Shu and M. J. Cai, “Fabric of Spacetime”, *Scientific American (Chinese Edition)*, 62, May, 2004.
2. M. J. Cai, “The Science of Science Fiction – Can we really build time machines?”, *Scientific American (Chinese Edition)*, 59, Nov, 2002.