

Carpet Publications

Background Publications and Web Pages

1. T. Goodale, G. Allen, G. Lanfermann, J. Massó, T. Radke, E. Seidel, and J. Shalf, *The Cactus framework and toolkit: Design and applications*, in *Vector and Parallel Processing – VECPAR'2002, 5th International Conference, Lecture Notes in Computer Science* (Springer, Berlin, 2003), URL <http://edoc.mpg.de/3341>.
2. E. Schnetter, P. Diener, E. N. Dorband, and M. Tiglio, *A multi-block infrastructure for three-dimensional time-dependent numerical relativity*, *Class. Quantum Grav.* **23**, S553 (2006), arXiv:gr-qc/0602104, URL <http://arxiv.org/abs/gr-qc/0602104>.
3. E. Schnetter, S. H. Hawley, and I. Hawke, *Evolutions in 3d numerical relativity using fixed mesh refinement*, *Class. Quantum Grav.* **21**, 1465 (2004), arXiv:gr-qc/0310042, URL <http://arxiv.org/abs/gr-qc/0310042>.
4. *Mesh refinement with Carpet*, URL <http://www.carpetcode.org/>.
5. *Cactus Computational Toolkit*, URL <http://www.cactuscode.org/>.

Publications in Refereed Journals

1. C. Reisswig, N. T. Bishop, D. Pollney, and B. Szilágyi, *Characteristic extraction in numerical relativity: binary black hole merger waveforms at null infinity*, *Class. Quantum Grav.* **27**, 075014 (2010), arXiv:0912.1285 [gr-qc], URL <http://arxiv.org/abs/0912.1285>.
2. Y. T. Liu, Z. B. Etienne, and S. L. Shapiro, *Evolution of near-extremal-spin black holes using the moving puncture technique*, *Phys. Rev. D* **80**, 121503(R) (2010), arXiv:1001.4077 [gr-qc], URL <http://arxiv.org/abs/1001.4077>.
3. I. Vega, P. Diener, W. Tichy, and S. Detweiler, *Self-force with (3+1) codes: a primer for numerical relativists*, *Phys. Rev. D* **80**, 084021 (2009), arXiv:0908.2138 [gr-qc], URL <http://arxiv.org/abs/0908.2138>.
4. D. Pollney, C. Reisswig, N. Dorband, E. Schnetter, and P. Diener, *The asymptotic falloff of local waveform measurements in numerical relativity*, *Phys. Rev. D* **80**, 121502(R) (2009), arXiv:0910.3656 [gr-qc], URL <http://arxiv.org/abs/0910.3656>.
5. B. Giacomazzo, L. Rezzolla, and L. Baiotti, *The influence of magnetic fields on the gravitational-wave emission from binary neutron stars*, *Mon. Not. Roy. Astron. Soc.* **339**, L164 (2009), arXiv:0901.2722 [gr-qc], URL <http://arxiv.org/abs/0901.2722>.
6. C. Reisswig, N. T. Bishop, D. Pollney, and B. Szilágyi, *Unambiguous determination of gravitational waveforms from binary black hole mergers*, *Phys. Rev. Lett.* **103**, 221101 (2009), arXiv:0907.2637 [gr-qc], URL <http://arxiv.org/abs/0907.2637>.
7. C. Reisswig, S. Husa, L. Rezzolla, E. N. Dorband, D. Pollney, and J. Seiler, *Gravitational-wave detectability of equal-mass black-hole binaries with aligned spins*, *Phys. Rev. D* **80**, 124026 (2009), arXiv:0907.0462 [gr-qc], URL <http://arxiv.org/abs/0907.0462>.

8. J. Healy, J. Levin, and D. Shoemaker, *Zoom-whirl orbits in black hole binaries*, Phys. Rev. Lett. **103**, 131101 (2009), arXiv:0907.0671 [gr-qc], URL <http://arxiv.org/abs/0907.0671>.
9. U. Sperhake, V. Cardoso, F. Pretorius, E. Berti, T. Hinderer, and N. Yunes, *Cross section, final spin and zoom-whirl behavior in high-energy black hole collisions*, Phys. Rev. Lett. **103**, 131102 (2009), arXiv:0907.1252 [gr-qc], URL <http://arxiv.org/abs/0907.1252>.
10. M. Saijo and I. Hawke, *Collapse of differentially rotating supermassive stars: Post black hole formation*, Phys. Rev. D **80**, 064001 (2009), arXiv:0908.3002 [gr-qc], URL <http://arxiv.org/abs/0908.3002>.
11. C. D. Ott, *Probing the core-collapse supernova mechanism with gravitational waves*, Class. Quantum Grav. **26**, 204015 (2009), arXiv:0905.2797 [gr-qc], URL <http://arxiv.org/abs/0905.2797>.
12. B. Vaishnav, I. Hinder, D. Shoemaker, and F. Herrmann, *Gravitational waves from eccentric intermediate mass binary black hole mergers*, Class. Quantum Grav. **26**, 204008 (2009).
13. E. Barausse and L. Rezzolla, *Predicting the direction of the final spin from the coalescence of two black holes*, Astrophys. J. **704**, L40 (2009), arXiv:0904.2577 [gr-qc], URL <http://arxiv.org/abs/0904.2577>.
14. B. Aylott, J. G. Baker, W. D. Boggs, M. Boyle, P. R. Brady, D. A. Brown, B. Brügmann, L. T. Buchman, A. Buonanno, L. Cadonati, J. Camp, M. Campanelli, J. Centrella, S. Chatterji, N. Christensen, T. Chu, P. Diener, N. Dorband, Z. B. Etienne, J. Faber, S. Fairhurst, B. Farr, S. Fischetti, G. Guidi, L. M. Goggin, M. Hannam, F. Herrmann, I. Hinder, S. Husa, V. Kalogera, D. Keppel, L. E. Kidder, B. J. Kelly, B. Krishnan, P. Laguna, C. O. Lousto, I. Mandel, P. Marronetti, R. Matzner, S. T. McWilliams, K. D. Matthews, R. A. Mercer, S. R. P. Mohapatra, A. H. Mroué, H. Nakano, E. Ochsner, Y. Pan, L. Pekowsky, H. P. Pfeiffer, D. Pollney, F. Pretorius, V. Raymond, C. Reisswig, L. Rezzolla, O. Rinne, C. Robinson, C. Röver, L. Santamaría, B. Sathyaprakash, M. A. Scheel, E. Schnetter, J. Seiler, S. L. Shapiro, D. Shoemaker, U. Sperhake, A. Stroeer, R. Sturani, W. Tichy, Y. T. Liu, M. van der Sluys, J. R. van Meter, R. Vaulin, A. Vecchio, J. Veitch, A. Viceré, J. T. Whelan, and Y. Zlochower, *Status of NINJA: the Numerical INjection Analysis project*, Class. Quantum Grav. **26**, 114008 (2009), arXiv:0901.4399 [gr-qc], URL <http://arxiv.org/abs/0905.4227>.
15. T. Bode, P. Laguna, D. M. Shoemaker, I. Hinder, F. Herrmann, and J. Vishnav, *Binary black hole evolutions of approximate puncture initial data*, Phys. Rev. D **80**, 024008 (2009), arXiv:0902.1127 [gr-qc], URL <http://arxiv.org/abs/0902.1127>.
16. T. W. Baumgarte, Z. B. Etienne, Y. T. Liu, K. Matera, N. Ó. Murchadha, S. L. Shapiro, and K. Taniguchi, *Equilibrium initial data for moving puncture simulations: the stationary 1+log slicing*, Class. Quantum Grav. **26**, 085007 (2009), arXiv:0810.0006 [gr-qc], URL <http://arxiv.org/abs/0810.0006>.
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