

# Carpet Publications

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## 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/>.

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## Publications in Refereed Journals

1. 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>.
2. 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>.
3. 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>.
4. L. Baiotti, B. Giacomazzo, and L. Rezzolla, *Accurate evolutions of inspiralling neutron-star binaries: assessment of the truncation error*, *Class. Quantum Grav.* **26**, 114005 (2009), arXiv:0901.4955 [gr-qc], URL <http://arxiv.org/abs/0901.4955>.

5. 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, *Testing gravitational-wave searches with numerical relativity waveforms: Results from the first Numerical INjection Analysis (NINJA) project*, Class. Quantum Grav. **26**, 165008 (2009), arXiv:0901.4399 [gr-qc], URL <http://arxiv.org/abs/0901.4399>.
6. M. Hannam, S. Husa, J. G. Baker, M. Boyle, B. Brügmann, T. Chu, N. Dorband, F. Herrmann, I. Hinder, B. J. Kelly, L. E. Kidder, P. Laguna, K. D. Matthews, J. R. van Meter, H. P. Pfeiffer, D. Pollney, C. Reisswig, M. A. Scheel, and D. Shoemaker, *The Samurai project: verifying the consistency of black-hole-binary waveforms for gravitational-wave detection*, Phys. Rev. D **79**, 084025 (2009), arXiv:0901.2437 [gr-qc], URL <http://arxiv.org/abs/0901.2437>.
7. L. Rezzolla, *Modelling the final state from binary black-hole coalescences*, Class. Quantum Grav. **26**, 094023 (2009), arXiv:0812.2325 [gr-qc], URL <http://arxiv.org/abs/0812.2325>.
8. Z. B. Etienne, Y. T. Liu, S. L. Shapiro, , and T. W. Baumgarte, *General relativistic simulations of black-hole-neutron-star mergers: Effects of black-hole spin*, Phys. Rev. D **79**, 044024 (2009), arXiv:0812.2245 [astro-ph], URL <http://arxiv.org/abs/0812.2245>.
9. M. Campanelli, C. O. Lousto, and Y. Zlochower, *Algebraic classification of numerical spacetimes and black-hole-binary remnants*, Phys. Rev. D **79**, 084012 (2009), arXiv:0811.3006 [gr-qc], URL <http://arxiv.org/abs/0811.3006>.
10. O. Korobkin, B. Aksoylu, M. Holst, E. Pazos, and M. Tiglio, *Solving the einstein constraint equations on multi-block triangulations using finite element methods*, Class. Quantum Grav. **26**, 145007 (2009), arXiv:0801.1823 [gr-qc], URL <http://arxiv.org/abs/0801.1823>.
11. D. Brown, P. Diener, O. Sarbach, E. Schnetter, and M. Tiglio, *Turduckening black holes: an analytical and computational study*, Phys. Rev. D **79**, 044023 (2009), arXiv:0809.3533 [gr-qc], URL <http://arxiv.org/abs/0809.3533>.
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14. J. Healy, F. Herrmann, I. Hinder, D. M. Shoemaker, P. Laguna, , and R. A. Matzner, *Superkicks in hyperbolic encounters of binary black holes*, Phys. Rev. Lett. **102**, 041101 (2009), arXiv:0807.3292 [gr-qc], URL <http://arxiv.org/abs/0807.3292>.

15. U. Sperhake, V. Cardoso, F. Pretorius, E. Berti, , and J. A. González, *High-energy collision of two black holes*, Phys. Rev. Lett. **101**, 161101 (2008), arXiv:0806.1738 [gr-qc], URL <http://arxiv.org/abs/0806.1738>.
16. L. Gualtieri, E. Berti, V. Cardoso, and U. Sperhake, *Transformation of the multipolar components of gravitational radiation under rotations and boosts*, Phys. Rev. D **78**, 044024 (2008), arXiv:0805.1017 [gr-qc], URL <http://arxiv.org/abs/0805.1017>.
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