

PUBLICATIONS: PATRICK BRADY

Refereed Publications:

1. Patrick R Brady, Mathew W Choptuik, Carsten Gundlach and David Nielsen, “*Black-hole threshold solutions in stiff fluid collapse*”, submitted to *Class. and Quantum Grav.*, gr-qc/0207096.
2. Warren G Anderson, Patrick R Brady, Jolien Creighton and Eanna E Flanagan, “*An excess power statistic for detection of burst sources of gravitational radiation*”, *Phys. Rev. D* **63**, 042003 (2001), gr-qc/0008066.
3. Warren G Anderson, Patrick R Brady, Jolien Creighton and Eanna E Flanagan, “*A power filter for the detection of burst sources of gravitational radiation in interferometric detectors*”, *Int. J. Mod. Phys. D* **9**, 303 (2000), gr-qc/0001044.
4. B. Allen, K. Blackburn, P. Brady, J. Creighton, T. Creighton, S. Droz, A. Gillespie, S. Hughes, S. Kawamura, T. Lyons, J. Mason, B. J. Owen, F. Raab, M. Regehr, B. Sathyaprakash, R. L. Savage, S. Whitcomb, A. Wiseman, “*Observational limit on gravitational waves from binary neutron stars in the Galaxy*”, *Phys. Rev. Letters*, **83**, 1498 (1999), gr-qc/9903108.
5. Patrick R Brady, Chris M Chambers, William G Larrackers and Eric Poisson, “*Radiative falloff in Schwarzschild-de Sitter spacetime*”, *Phys. Rev. D* **60**, 064003 (1999), gr-qc/9902010.
6. Patrick R Brady and Teviet Creighton, “*Searching for periodic sources with LIGO. II: Hierarchical searches*”, *Phys. Rev. D* **61**, 082001 (2000), gr-qc/9812014.
7. Patrick R Brady, Jolien Creighton and Kip S Thorne, “*Computing the merger of black-hole binaries: the IBBH problem*”, *Phys. Rev. D* **58**, 061501 (1998), gr-qc/9804057.
8. Patrick R Brady, Serge Droz, and Sharon M Morsink, “*The late time singularity inside non-spherical black holes*”, *Phys. Rev. D* **58**, 084034 (1998), gr-qc/9805008.
9. Patrick R Brady and Adrian C Ottewill, “*Quantum corrections to critical phenomena in gravitational collapse*”, *Phys. Rev. D* **58**, 024006 (1998), gr-qc/9804058.
10. Patrick R Brady, Robert C Myers and Ian G Moss, “*Cosmic censorship: as strong as ever*”, *Phys. Rev. Letters* **80**, 3432 (1998), gr-qc/9801032.
11. Patrick R Brady, Teviet Creighton, Curt Cutler and Bernard Schutz, “*Searching for periodic sources with LIGO*”, *Phys. Rev. D* **57**, 2101 (1998), gr-qc/9702050.
12. Patrick R Brady, Chris M Chambers and Sérgio Gonçalves, “*Phases of massive scalar field collapse*”, *Phys. Rev. D* **56**, R6057 (1997), gr-qc/9709014.
13. Patrick R Brady and Scott Hughes, “*A neutron star is unaffected by a companion at order μ/R* ”, *Phys. Rev. Letters* **79**, 1186-1188 (1997).
14. Patrick R Brady, Chris Chambers, William Krivan and Pablo Laguna, “*Telling tails in the presence of a cosmological constant*”, *Phys. Rev. D* **55**, 7538-7545 (1997).
15. Patrick R Brady, Serge Droz, Werner Israel and Sharon M Morsink, “*Double null dynamics: (2+2)-splitting of the Einstein field equations*”, *Class. and Quantum Grav.* **13**, 2211-2230 (1996).
16. Patrick R Brady and John D Smith, “*Black hole singularities: a numerical approach*”, *Phys. Rev. Letters* **75**, 1256 (1995).

17. Patrick R Brady and Chris M Chambers, “*Non-linear instability of Kerr-type Cauchy horizons*”, Phys. Rev. D**51**, 4177 (1995).
18. Patrick R Brady, “*Self-similar scalar field collapse: naked singularities and critical behavior*”, Phys. Rev. D**51**, 4168 (1995).
19. Roberto Balbinot and Patrick R Brady, “*Inside two dimensional black holes*”, Class. Quantum Grav. **11**, 1763-1773 (1994).
20. Patrick R Brady, “*Analytic example of critical behavior in scalar field collapse*”, Class. Quantum Grav. **11**, 1255-1260 (1994).
21. Patrick R Brady, Dario Nunez and Sukhanya Sinha, “*Cauchy horizon singularity without mass inflation*”, Phys. Rev. D**47**, 4239-4243 (1993).
22. Claude Barrabès, Patrick R Brady and Eric Poisson, “*The death of white holes*”, Phys. Rev. D**47**, 2383-2387 (1993).
23. Warren G Anderson, Patrick R Brady and Roberto Camporesi, “*Vacuum polarization and the black hole singularity*”, Class. Quantum Grav. **10**, 497-503 (1993).
24. Warren G Anderson, Patrick R Brady, Werner Israel and Sharon Morsink, “*Quantum effects in black hole interiors*”, Phys. Rev. Letters **70**, 1041-1044 (1993).
25. Patrick R Brady, “*Stability of Tension Stars*”, Mon. Notices Roy. Astron. Soc.(1992) **255**, 379-381.
26. Patrick R Brady and Eric Poisson, “*Cauchy horizon instability for Reissner-Nordstrom black holes in de Sitter space*”, Class. Quantum Grav., **9**, 121-126 (1992).
27. Roberto Balbinot, Patrick R Brady, Werner Israel and Eric Poisson, “*How singular are black hole interiors?*”, Phys. Lett. **161A**, 223-226 (1991).
28. Patrick R Brady, Jorma Louko and Eric Poisson, “*Stability of a shell around a black hole*”, Phys. Rev. D**44**, 1891-1894 (1991).

Technical Reports:

1. Stuart Anderson *et al.*, “*Conventions for data and software products of the LIGO and the LSC*”, LIGO technical report LIGO-T010095-00-Z (2001).
2. Kent Blackburn, Patrick Brady, Duncan Brown, Jolien Creighton, Albert Lazzarini and Alan Wiseman, “*LAL-LDAS Interface Coding Specification*”, LIGO technical report LIGO-T010003-00-E (2001).
3. Maria Barnes *et al.*, “*MPI Mock Data Challenge*”, LIGO technical report LIGO-T010024-00-Z (2001).
4. Bruce Allen and Patrick R Brady, “*Quantization noise in Ligo interferometers*”, LIGO technical report LIGO-T970128-01-E (1997).

Other Publications:

1. Patrick Brady, “*Analysis of data from interferometric gravitational-wave detectors*”, in *High Frequency Gravitational-wave Detection*, Proceedings of SPIE Vol. 4856 (2002)..
2. Patrick Brady and Jolien Creighton, “*Gravitational Wave Astronomy*”, in *Encyclopedia of Physical Science and Technology*, (Academic Press, 2001)..

3. Patrick R Brady, “*Gravitational wave data analysis in the LIGO Scientific Collaboration*”, in *Astrophysical Sources of Gravitational Radiation for Ground-Based Detectors*, edited by Joan Centrella (2001)..
4. Patrick R Brady, “*The internal structure of black holes*”, Prog. Theor. Phys. Suppl. **136** (1999).
5. Patrick R Brady and Mike J Cai, “*Critical phenomena in gravitational collapse*”, Invited contribution to proceedings of Marcel Grossmann Eight, 21–27 June 1998, Jerusalem, gr-qc/9812071.
6. Patrick R Brady, “*Self-similar gravitational collapse*”, talk given at Conference on Mathematical Relativity, Vienna, Austria (1994).
7. Patrick R Brady, “*Semi-classical effects near mass-inflation singularities*”, in Proceedings of 5th Canadian Conference on General Relativity and Relativistic Astrophysics (1993).

Papers in preparation:

1. Patrick R Brady, Jolien D E Creighton, L Samuel Finn and Alan G Wiseman, “*Upper limits on burst sources of gravitational waves*”, to be submitted to Phys. Rev. D.
2. Patrick R Brady, Jolien D E Creighton and Alan G Wiseman, “*Numerical relativity in a rotating frame: a toy problem*”, to be submitted to Phys. Rev. D.
3. Patrick R Brady, “*Gravitational collapse and spacetime singularities*”, to appear in proceedings of X Brazilian School of Cosmology and Gravitation.