

Philip S. Cowperthwaite

Publications

Updated Oct 19, 2017. The most recent version of this list may be found online at <http://www.pscastro.com>. ADS citation counts are shown in square brackets. I am an author on 26 refereed publications (7 as first author), my *h*-index is 11 and my refereed publications have 388 citations.

Refereed

26. C Guidorzi, R Margutti, D Brout, D Scolnic, W Fong, KD Alexander, **PS Cowperthwaite**, E Berger, PK Blanchard, R Chornock, DL Coppejans, T Eftekhari, JA Frieman, D Huterer, M Nicholl, M Soares-Santos, VA Villar, PKG Williams. “*Improved Constraints on H_0 from a combined analysis of gravitational-wave and electromagnetic emission from GW170817.*” 2017, [arxiv:1710.06426](https://arxiv.org/abs/1710.06426).
25. D Scolnic, R Kessler, D Brout, **PS Cowperthwaite**, M Soares-Santos, J Annis, K Herner, H-Y Chen, M Sako, Z Doctor, RE Butler, A Palmese, HT Diehl, J Frieman, DE Holz, E Berger, R Chornock, VA Villar, M Nicholl, R Biswas, R Hounsell, RJ Foley, J Metzger, A Rest, J García-Bellido, A Möller, P Nugent, TMC Abbott, FB Abdalla, S Allam, K Bechtol, A Benoit-Lévy, E Bertin, D Brooks, E Buckley-Geer, A Carnero Rosell, M Carrasco Kind, J Carretero, FJ Castander, CE Cunha, CB D’Andrea, LN da Costa, C Davis, P Doel, A Drlica-Wagner, TF Eifler, B Flaugher, P Fosalba, E Gaztanaga, DW Gerdes, D Gruen, RA Gruendl, J Gschwend, G Gutierrez, WG Hartley, K Honscheid, DJ James, MWG Johnson, MD Johnson, E Krause, K Kuehn, S Kuhlmann, O Lahav, TS Li, M Lima, MAG Maia, M March, JL Marshall, F Menanteau, R Miquel, E Neilsen, AA Plazas, E Sanchez, V Scarpine, M Schubnell, I Sevilla-Noarbe, M Smith, RC Smith, F Sobreira, E Suchyta, MEC Swanson, G Tarle, RC Thomas, DL Tucker, AR Walker, DES Collaboration. “*How Many Kilonovae Can Be Found in Past, Present, and Future Survey Datasets?.*” 2017, [arxiv:1710.05845](https://arxiv.org/abs/1710.05845).
24. W Fong, E Berger, PK Blanchard, R Margutti, **PS Cowperthwaite**, R Chornock, KD Alexander, BD Metzger, VA Villar, M Nicholl, T Eftekhari, PKG Williams, J Annis, D Brout, DA Brown, H-Y Chen, Z Doctor, HT Diehl, DE Holz, A Rest, M Sako, M Soares-Santos. “*The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/VIRGO GW170817. VIII. A Comparison to Cosmological Short-duration Gamma-ray Bursts.*” 2017, [The Astrophysical Journal Letters 848 L23](https://arxiv.org/abs/1710.05845).
23. PK Blanchard, E Berger, W Fong, M Nicholl, J Leja, C Conroy, KD Alexander, R Margutti, PKG Williams, Z Doctor, R Chornock, VA Villar, **PS Cowperthwaite**, J Annis, D Brout, DA Brown, H-Y Chen, T Eftekhari, JA Frieman, DE Holz, BD Metzger, A Rest, M Sako, M Soares-Santos. “*The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/VIRGO GW170817. VII. Properties of the Host Galaxy and Constraints on the Merger Timescale.*” 2017, [The Astrophysical Journal Letters 848 L22](https://arxiv.org/abs/1710.05845).
22. KD Alexander, E Berger, W Fong, PKG Williams, C Guidorzi, R Margutti, BD Metzger, J Annis, PK Blanchard, D Brout, DA Brown, H-Y Chen, R Chornock, **PS Cowperthwaite**, M Drout, T Eftekhari, J Frieman, DE Holz, M Nicholl, A Rest, M Sako, M Soares-Santos, VA Villar. “*The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/VIRGO GW170817. VI. Radio Constraints on a Relativistic Jet and Predictions for Late-Time Emission from the Kilonova Ejecta.*” 2017, [The Astrophysical Journal Letters 848 L21](https://arxiv.org/abs/1710.05845).
21. R Margutti, E Berger, W Fong, C Guidorzi, KD Alexander, BD Metzger, PK Blanchard, **PS Cowperthwaite**, R Chornock, T Eftekhari, M Nicholl, VA Villar, PKG Williams, J Annis, DA Brown, HY Chen, Z Doctor, JA Frieman, DE Holz, M Sako, M Soares-Santos. “*The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/VIRGO GW170817. V. Rising X-ray Emission from an Off-Axis Jet.*” 2017, [The Astrophysical Journal Letters 848 L20](https://arxiv.org/abs/1710.05845).
20. R Chornock, E Berger, D Kasen, **PS Cowperthwaite**, M Nicholl, VA Villar, KD Alexander, PK Blanchard, T Eftekhari, W Fong, R Margutti, PKG Williams, J Annis, D Brout, DA Brown, H-Y Chen, MR

- Drout, RJ Foley, JA Frieman, CL Fryer, DE Holz, T Matheson, BD Metzger, E Quataert, A Rest, M Sako, DM Scolnic, N Smith, M Soares-Santos. “*The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/VIRGO GW170817. IV. Detection of Near-infrared Signatures of r-process Nucleosynthesis with Gemini-South.*” 2017, [The Astrophysical Journal Letters](#) 848 L19.
19. M Nicholl, E Berger, D Kasen, BD Metzger, J Elias, C Briceno, KD Alexander, PK Blanchard, R Chornock, **PS Cowperthwaite**, T Eftekhari, W Fong, R Margutti, VA Villar, PKG Williams, W Brown, J Annis, A Bahramian, D Brout, DA Brown, H-Y Chen, JC Clemens, E Denny, B Dunlap, DE Holz, E Marchesini, F Massaro, N Moskowitz, I Pelisoli, A Rest, F Ricci, M Sako, M Soares-Santos, J Strader. “*The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/VIRGO GW170817. III. Optical and UV Spectra of a Blue Kilonova From Fast Polar Ejecta.*” 2017, [The Astrophysical Journal Letters](#) 848 L18.
18. **PS Cowperthwaite**, E Berger, VA Villar, BD Metzger, M Nicholl, R Chornock, PK Blanchard, W Fong, R Margutti, M Soares-Santos, KD Alexander, S Allam, J Annis, D Brout, DA Brown, RE Butler, H-Y Chen, HT Diehl, Z Doctor, MR Drout, T Eftekhari, B Farr, DA Finley, RJ Foley, JA Frieman, CL Fryer, J García-Bellido, MSS Gill, J Guillochon, K Herner, DE Holz, D Kasen, R Kessler, J Marriner, T Matheson, JEH Neilsen, E Quataert, A Palmese, A Rest, M Sako, DM Scolnic, N Smith, DL Tucker, PKG Williams, E Balbinot, JL Carlin, ER Cook, F Durret, TS Li, PAA Lopes, ACC Lourenço, JL Marshall, GE Medina, J Muir, RR Muñoz, M Sauseda, DJ Schlegel, LF Secco, AK Vivas, W Wester, A Zenteno, Y Zhang, TMC Abbott, M Banerji, K Bechtol, A Benoit-Lévy, E Bertin, E Buckley-Geer, DL Burke, D Capozzi, A Carnero Rosell, M Carrasco Kind, FJ Castander, M Croce, CE Cunha, CB D’Andrea, LN da Costa, C Davis, DL DePoy, S Desai, JP Dietrich, A Drlica-Wagner, TF Eifler, AE Evrard, E Fernandez, B Flaugher, P Fosalba, E Gaztanaga, DW Gerdes, T Giannantonio, DA Goldstein, D Gruen, RA Gruendl, G Gutierrez, K Honscheid, B Jain, DJ James, T Jeltema, MWG Johnson, MD Johnson, S Kent, E Krause, R Kron, K Kuehn, N Kuropatkin, O Lahav, M Lima, H Lin, MAG Maia, M March, P Martini, RG McMahon, F Menanteau, CJ Miller, R Miquel, JJ Mohr, E Neilsen, RC Nichol, RLC Ogando, AA Plazas, N Roe, AK Romer, A Roodman, ES Rykoff, E Sanchez, V Scarpine, R Schindler, M Schubnell, I Sevilla-Noarbe, M Smith, RC Smith, F Sobreira, E Suchyta, MEC Swanson, G Tarle, D Thomas, RC Thomas, MA Troxel, V Vikram, AR Walker, RH Wechsler, J Weller, B Yanny, J Zuntz. “*The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/VIRGO GW170817. II. UV, Optical, and Near-IR Light Curves and Comparison to Kilonova Models.*” 2017, [The Astrophysical Journal Letters](#) 848 L17.
17. M Soares-Santos, DE Holz, J Annis, R Chornock, K Herner, E Berger, D Brout, H Chen, R Kessler, M Sako, S Allam, DL Tucker, RE Butler, A Palmese, Z Doctor, HT Diehl, J Frieman, B Yanny, H Lin, D Scolnic, **PS Cowperthwaite**, E Neilsen, J Marriner, N Kuropatkin, WG Hartley, F Paz-Chinchón, KD Alexander, E Balbinot, P Blanchard, DA Brown, JL Carlin, C Conselice, ER Cook, A Drlica-Wagner, MR Drout, F Durret, T Eftekhari, B Farr, DA Finley, RJ Foley, W Fong, CL Fryer, J García-Bellido, MSS Gill, RA Gruendl, C Hanna, D Kasen, TS Li, PAA Lopes, ACC Lourenço, R Margutti, JL Marshall, T Matheson, GE Medina, BD Metzger, RR Muñoz, J Muir, M Nicholl, E Quataert, A Rest, M Sauseda, DJ Schlegel, LF Secco, F Sobreira, A Stebbins, VA Villar, AR Walker, W Wester, PKG Williams, A Zenteno, Y Zhang, TMC Abbott, FB Abdalla, M Banerji, K Bechtol, A Benoit-Lévy, E Bertin, D Brooks, E Buckley-Geer, DL Burke, A Carnero Rosell, M Carrasco Kind, J Carretero, FJ Castander, M Croce, CE Cunha, CB D’Andrea, LN da Costa, C Davis, S Desai, JP Dietrich, P Doel, TF Eifler, E Fernandez, B Flaugher, P Fosalba, E Gaztanaga, DW Gerdes, T Giannantonio, DA Goldstein, D Gruen, J Gschwend, G Gutierrez, K Honscheid, B Jain, DJ James, T Jeltema, MWG Johnson, MD Johnson, S Kent, E Krause, R Kron, K Kuehn, S Kuhlmann, O Lahav, M Lima, MAG Maia, M March, RG McMahon, F Menanteau, R Miquel, JJ Mohr, RC Nichol, B Nord, RLC Ogando, D Petravick, AA Plazas, AK Romer, A Roodman, ES Rykoff, E Sanchez, V Scarpine, M Schubnell, I Sevilla-Noarbe, M Smith, RC Smith, E Suchyta, MEC Swanson, G Tarle, D Thomas, RC Thomas, MA Troxel, V Vikram, RH Wechsler, J Weller. “*The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/Virgo GW170817. I. Dark Energy Camera Discovery of the Optical Counterpart.*” 2017, [The Astrophysical Journal Letters](#) 848 L16.
16. BP Abbott, R Abbott, TD Abbott, F Acernese, K Ackley, C Adams, T Adams, P Addesso, RX Adhikari,

VB Adya, **al.**. “A gravitational-wave standard siren measurement of the Hubble constant.” 2017, [Nature Advanced Online Publishing](#) –.

15. The LIGO Scientific Collaboration, VIRGO Collaboration, & EM Partners. “Multi-messenger Observations of a Binary Neutron Star Merger.” 2017, [The Astrophysical Journal Letters](#) **848** L12.
14. **PS Cowperthwaite**, E Berger, A Rest, R Chornock, DM Scolnic, PKG Williams, W Fong, MR Drout, RJ Foley, R Margutti, R Lunnan, BD Metzger, E Quataert. “An Empirical Study of Contamination in Deep, Rapid, and Wide-Field Optical Follow-Up of Gravitational Wave Events.” 2017, [arxiv:1710.02144](#).
13. R Lunnan, R Chornock, E Berger, D Milisavljevic, DO Jones, A Rest, W Fong, C Fransson, R Margutti, MR Drout, PK Blanchard, P Challis, **PS Cowperthwaite**, RJ Foley, RP Kirshner, N Morrell, AG Riess, KC Roth, D Scolnic, SJ Smartt, KW Smith, VA Villar, KC Chambers, PW Draper, ME Huber, N Kaiser, R-P Kudritzki, EA Magnier, N Metcalfe, C Waters. “PS1-14bj: A Hydrogen-poor Superluminous Supernova With a Long Rise and Slow Decay.” 2016, [ApJ](#) **831** 144 [25].
12. M Nicholl, E Berger, R Margutti, R Chornock, PK Blanchard, A Jerkstrand, SJ Smartt, I Arcavi, P Challis, KC Chambers, T-W Chen, **PS Cowperthwaite**, A Gal-Yam, G Hosseinzadeh, DA Howell, C Inserra, E Kankare, EA Magnier, K Maguire, PA Mazzali, C McCully, D Milisavljevic, KW Smith, S Taubenberger, S Valenti, RJ Wainscoat, O Yaron, DR Young. “Superluminous Supernova SN 2015bn in the Nebular Phase: Evidence for the Engine-powered Explosion of a Stripped Massive Star.” 2016, [ApJL](#) **828** L18 [17].
11. **PS Cowperthwaite**, E Berger, M Soares-Santos, J Annis, D Brout, DA Brown, E Buckley-Geer, SB Cenko, HY Chen, R Chornock, HT Diehl, Z Doctor, A Drlica-Wagner, MR Drout, B Farr, DA Finley, RJ Foley, W Fong, DB Fox, J Frieman, J Garcia-Bellido, MSS Gill, RA Gruendl, K Herner, DE Holz, D Kasen, R Kessler, H Lin, R Margutti, J Marriner, T Matheson, BD Metzger, JEH Neilsen, E Quataert, A Rest, M Sako, D Scolnic, N Smith, F Sobreira, GM Strampelli, VA Villar, AR Walker, W Wester, PKG Williams, B Yanny, TMC Abbott, FB Abdalla, S Allam, R Armstrong, K Bechtol, A Benoit-Lévy, E Bertin, D Brooks, DL Burke, A Carnero Rosell, M Carrasco Kind, J Carretero, FJ Castander, CE Cunha, CB D’Andrea, LN da Costa, S Desai, JP Dietrich, AE Evrard, A Fausti Neto, P Fosalba, DW Gerdes, T Giannantonio, DA Goldstein, D Gruen, G Gutierrez, K Honscheid, DJ James, MWG Johnson, MD Johnson, E Krause, K Kuehn, N Kuropatkin, M Lima, MAG Maia, JL Marshall, F Menanteau, R Miquel, JJ Mohr, RC Nichol, B Nord, R Ogando, AA Plazas, K Reil, AK Romer, E Sanchez, V Scarpine, I Sevilla-Noarbe, RC Smith, E Suchyta, G Tarle, D Thomas, RC Thomas, DL Tucker, J Weller, DES Collaboration. “A DECam Search for an Optical Counterpart to the LIGO Gravitational-wave Event GW151226.” 2016, [ApJL](#) **826** L29 [20].
10. BP Abbott, R Abbott, TD Abbott, MR Abernathy, F Acernese, K Ackley, C Adams, T Adams, P Addesso, RX Adhikari, **al.**. “Supplement: Localization and Broadband Follow-up of the Gravitational-wave Transient GW150914 (2016, [ApJL](#), 826, L13).” 2016, [ApJS](#) **225** 8 [25].
9. BP Abbott, R Abbott, TD Abbott, MR Abernathy, F Acernese, K Ackley, C Adams, T Adams, P Addesso, RX Adhikari, **al.**. “Localization and Broadband Follow-up of the Gravitational-wave Transient GW150914.” 2016, [ApJL](#) **826** L13 [128].
8. M Nicholl, E Berger, SJ Smartt, R Margutti, A Kamble, KD Alexander, T-W Chen, C Inserra, I Arcavi, PK Blanchard, R Cartier, KC Chambers, MJ Childress, R Chornock, **PS Cowperthwaite**, M Drout, HA Flewelling, M Fraser, A Gal-Yam, L Galbany, J Harmanen, TW-S Holoien, G Hosseinzadeh, DA Howell, ME Huber, A Jerkstrand, E Kankare, CS Kochanek, Z-Y Lin, R Lunnan, EA Magnier, K Maguire, C McCully, M McDonald, BD Metzger, D Milisavljevic, A Mitra, T Reynolds, J Saario, BJ Shappee, KW Smith, S Valenti, VA Villar, C Waters, DR Young. “SN 2015BN: A Detailed Multi-wavelength View of a Nearby Superluminous Supernova.” 2016, [ApJ](#) **826** 39 [39].
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6. M Soares-Santos, R Kessler, E Berger, J Annis, D Brout, E Buckley-Geer, H Chen, **PS Cowperthwaite**, HT Diehl, Z Doctor, A Drlica-Wagner, B Farr, DA Finley, B Flaugher, RJ Foley, J Frieman, RA Gruendl, K Herner, D Holz, H Lin, J Marriner, E Neilsen, A Rest, M Sako, D Scolnic, F Sobreira, AR Walker, W Wester, B Yanny, TMC Abbott, FB Abdalla, S Allam, R Armstrong, M Banerji, A Benoit-Lévy, RA Bernstein, E Bertin, DA Brown, DL Burke, D Capozzi, A Carnero Rosell, M Carrasco Kind, J Carretero, FJ Castander, SB Cenko, R Chornock, M Croce, CB D’Andrea, LN da Costa, S Desai, JP Dietrich, MR Drout, TF Eifler, J Estrada, AE Evrard, S Fairhurst, E Fernandez, J Fischer, W Fong, P Fosalba, DB Fox, CL Fryer, J Garcia-Bellido, E Gaztanaga, DW Gerdes, DA Goldstein, D Gruen, G Gutierrez, K Honscheid, DJ James, I Karliner, D Kasen, S Kent, N Kuropatkin, K Kuehn, O Lahav, TS Li, M Lima, MAG Maia, R Margutti, P Martini, T Matheson, RG McMahon, BD Metzger, CJ Miller, R Miquel, JJ Mohr, RC Nichol, B Nord, R Ogando, J Peoples, AA Plazas, E Quataert, AK Romer, A Roodman, ES Rykoff, E Sanchez, V Scarpine, R Schindler, M Schubnell, I Sevilla-Noarbe, E Sheldon, M Smith, N Smith, RC Smith, A Stebbins, PJ Sutton, MEC Swanson, G Tarle, J Thaler, RC Thomas, DL Tucker, V Vikram, RH Wechsler, J Weller, DES Collaboration. “*A Dark Energy Camera Search for an Optical Counterpart to the First Advanced LIGO Gravitational Wave Event GW150914.*” 2016, [ApJL 823 L33](#) [37].
 5. **PS Cowperthwaite**, E Berger. “*A Comprehensive Study of Detectability and Contamination in Deep Rapid Optical Searches for Gravitational Wave Counterparts.*” 2015, [ApJ 814 25](#) [28].
 4. **PS Cowperthwaite**, CS Reynolds. “*Nonlinear Dynamics of Accretion Disks with Stochastic Viscosity.*” 2014, [ApJ 791 126](#) [7].
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 2. **PS Cowperthwaite**, F Massaro, R D’Abrusco, A Paggi, G Tosti, HA Smith. “*Identification of New Gamma-Ray Blazar Candidates with Multifrequency Archival Observations.*” 2013, [AJ 146 110](#) [9].
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