

# Publications: Prof. Philipp Podsiadlowski

## Citations

*Google Scholar* [10/2014]:

9661 (overall), 5852 (since 2009), h-index: 53 (overall), 42 (since 2009)

*ADS* [10/2014]: 8274 (overall), h-index: 49 (overall)

## Publications: Refereed (since 2004)<sup>1</sup>

1. “The Progenitors of sdB Binaries: Confronting Theory with Observations.”  
Podsiadlowski, Ph., & Han, Z. 2004, *Ap&SS*, 291, 291
2. “The single degenerate channel for the progenitors of type Ia supernovae.”  
Han, Z., & Podsiadlowski, Ph. 2004, *MNRAS*, 350, 1301
3. “The Effects of Binary Evolution on the Dynamics of Core Collapse and Neutron-Star Kicks.”  
Podsiadlowski, Ph., Langer, N., Poelarends, A. J. T., Rappaport, S., Heger, A., & Pfahl, E. 2004, *ApJ*, 612, 1044 (astro-ph/0309588)
4. “The massive binary companion star to the progenitor of supernova 1993J.”  
Maund, J. R., Smartt, S. J., Kudritzki, R. P., Podsiadlowski, Ph., & Gilmore, G. F. 2004, *Nat*, 2004, 427, 129
5. “The Rates of Hypernovae and Gamma-Ray Bursts: Implications for Their Progenitors.”  
Podsiadlowski, Ph., Mazzali, P. A., Nomoto, K., Lazzati, D., & Cappellaro, E., 2004, *ApJ*, 607, L17
6. “Stellar-mass black-hole binaries as ultraluminous X-ray sources.”  
Rappaport, S., Podsiadlowski, Ph., & Pfahl, E. 2005, *MNRAS*, 356, 401
7. “A two-streams formalism for the convective Urca process.”  
Lesaffre, P., Podsiadlowski, Ph., & Tout, C. A. 2005, *MNRAS*, 356, 131
8. “Relativistic Binary Pulsars with Black-Hole Companions.”  
Pfahl, E., Podsiadlowski, Ph., & Rappaport, S. 2005, *ApJ*, 628, 343
9. “High-velocity Features: a Ubiquitous Property of Type Ia SNe.”  
Mazzali, P. A., et al., 2005, *ApJ*, 623, 37 (astro-ph/0502531)
10. “The Double Pulsar J0737–3039: Testing the Neutron Star Equation of State.”  
Podsiadlowski, Ph., Dewi, J. D. M., Lesaffre, P., Miller, J. C., Newton, W., & Stone, J. R. 2005, *MNRAS*, 361, 1243
11. “The spin period – eccentricity relation of double neutron stars: evidence for weak supernova kicks?”  
Dewi, J. D. M., Podsiadlowski, Ph., & Pols, O. R. 2005, *MNRAS*, 363, L71
12. “An Infrared Imaging Survey of the Faint Chandra Sources near the Galactic Centre.”  
Bandyopadhyay, R. M., Miller-Jones, J. C. A., Blundell, K. M., Bauer, F. E., Podsiadlowski, Ph., Gosling, A. J., Wang, Q. D., Pfahl, E., & Rappaport, S. 2005, *MNRAS*, 364, 1195 (astro-ph/0509346)
13. “The convective Urca process.”  
Lesaffre, P., Podsiadlowski, Ph., & Tout, C. A. 2005, *NuPhA*, 758, 463

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<sup>1</sup>Based on the ADS selection, but it also includes a few papers that so far have only appeared on astro-ph.

14. “Anisotropic mass ejection in binary mergers.”  
Morris, T., & Podsiadlowski, Ph. 2006, MNRAS, 365, 2 (astro-ph/0502288)
15. “Models of Ultraluminous X-Ray Sources with Intermediate-Mass Black Holes.”  
Madhusudhan, N., Justham, S., Nelson, L., Paxton, B., Pfahl, E., Podsiadlowski, Ph., & Rappaport, S. 2006, ApJ, 640, 918 (astro-ph/0511393)
16. “Magnetic Braking of Ap/Bp Stars: Application to Compact Black-Hole X-Ray Binaries”  
Justham, S., Rappaport, S., & Podsiadlowski, Ph. 2006, MNRAS, 366, 1415 (astro-ph/0511760)
17. “A single-degenerate model for the progenitor of the Type Ia supernova 2002ic.”  
Han, Z., & Podsiadlowski Ph. 2006, MNRAS, 368, 1095 (astro-ph/0602229)
18. “The  $^{58}\text{Ni}/^{56}\text{Ni}$  ratio as a second parameter for Type Ia Supernova properties.”  
Mazzali, P. A., & Podsiadlowski, Ph. 2006, MNRAS, 369, 19 (astro-ph/0604032)
19. “Double-Core Evolution and the Formation of Neutron Stars with Compact Companions.”  
Dewi, J. D. M., Podsiadlowski, Ph., and Sena A. 2006, MNRAS, 368, 1742 (astro-ph/0602510)
20. “The C-flash and the ignition conditions of Type Ia supernovae.”  
Lesaffre, P., Han, Z., Tout, C. A., Podsiadlowski, Ph., & Martin R. 2006, MNRAS, 368, 187 (astro-ph/0601443)
21. “The UV Upturn of Elliptical Galaxies.” Han, Z., Podsiadlowski, Ph., & Lynas-Gray, A. E. 2006, BaltA, 15, 17
22. “Constraints on SN Ia progenitor time delays from high-z SNe and the Star-Formation History.”  
Förster, F., Wolf, Ch., Podsiadlowski, Ph., & Han, Z. 2006, MNRAS, 368, 1893 (astro-ph/0601454)
23. “The metallicity dependence of the long-duration gamma-ray burst rate from host galaxy luminosities.”  
Wolf, Ch., & Podsiadlowski, Ph. 2007, MNRAS, 375, 1049
24. “The Origin and Evolution of Symbiotic Binaries.”  
Podsiadlowski, Ph. Mohamed, Š. 2007, BaltA, 16, 26
25. “The triple-ring nebula around SN 1987A: fingerprint of a binary merger.”  
Morris, T., Podsiadlowski, Ph., 2007, Science, 315, 1103
26. “Cosmological Implications of the Second Parameter of Type Ia Supernovae.”  
Podsiadlowski, Ph., Mazzali, P. A., Lesaffre, P., Wolf, C. Förster, F. 2006 [astro-ph/0608324]
27. “A binary model for the UV upturn of elliptical galaxies.”  
Han, Z., Podsiadlowski, Ph., & Lynas-Gray, A. E. L. G. 2007, MNRAS, 380, 1098 [arXiv:0704.0863]
28. “A New Population of High Redshift Short-Duration Gamma-Ray Bursts.”  
Berger, E., et al. 2007, ApJ, 664, 1000 (astro-ph/0608324)
29. “Remnant evolution after a carbon-oxygen white dwarf merger.”  
Yoon, S.-C., Podsiadlowski, Ph., & Rosswog, S. 2007, MNRAS, 390, 933 [arXiv:0704.02797]

30. "Detection of Circumstellar Material in a Normal Type Ia Supernova."  
Patat, F., et al. 2007, *Science*, 317, 924
31. "Upper limit for circumstellar gas around the type Ia SN 2000cx."  
Patat, F., et al., 2007, *A&A*, 474, 931
32. "Constraints on Type Ib/c Supernovae and Gamma-Ray Burst Progenitors."  
Fryer, C. L., et al., 2007, *PASP*, 119, 1211
33. "Models for the Observable System Parameters of Ultraluminous X-ray Sources."  
Madhusudhan, N., Rappaport, S., Podsiadlowski, Ph., & Nelson L., 2008, *ApJ*, 688, 1235 [arXiv:0710.3854]
34. "Gamma-ray bursts from tidally spun-up Wolf-Rayet stars?"  
Detmers, R. G., Langer, N., Podsiadlowski, Ph., & Izzard, R. G. 2008, *A&A*, 484, 831
35. "Supernova Shock Breakout from a Red Supergiant."  
Schawinski, K., et al., 2008, *Science*, 321, 223
36. "The nuclear diversity of Type Ia supernova explosions."  
Podsiadlowski, Ph., Mazzali, P., Lesaffre, P., Han, Z., Förster, F., 2008, *NewAR*, 52, 381
37. "Type Ia supernovae and the formation of single low-mass white dwarfs."  
Stephen, J., Wolf, C., Podsiadlowski, Ph., Han, Z., 2009, *A&A*, 493, 1081 [arXiv:0811.2633]
38. "The Past and Future History of Regulus."  
Rappaport, S., Podsiadlowski, Ph., Horev, I., 2009, *ApJ*, 698, 666 [arXiv:0904.0395]
39. "A glimpse of the end of the dark ages: the gamma-ray burst of 23 April 2009 at redshift 8.3."  
Tanvir, N. R., et al., 2009, *Nat*, 461, 1254 [arXiv:0906.1577]
40. "Subaru high-resolution spectroscopy of Star G in the Tycho supernova remnant."  
Kerzendorf, W. E., Schmidt, B. P., Asplund, M., Nomoto, K., Podsiadlowski, Ph., Frebel, A., Fesen, R. A., & Yong, D, 2009, *ApJ*, 701, 1665 [arXiv:0906.0982]
41. "A binary merger model for the formation of the Supernova 1987A triple-ring nebula."  
Morris, T., & Podsiadlowski, Ph., 2009, *MNRAS*, 399, 515
42. "Hot subdwarf stars in close-up view. I. Rotational properties of subdwarf B stars in close binary systems and nature of their unseen companions."  
Geier, S., Heber, U., Podsiadlowski, Ph., Napiwotzki, R., Kupfer, T., Müller, S., 2010, *A&A*, 519, 25
43. "Explosive Common-Envelope Ejection: Implications for Gamma-Ray Bursts and Low-Mass Black-Hole Binaries."  
Podsiadlowski, Ph., Ivanova, N., Justham, S., Rappaport, S., 2010, *MNRAS*, 406, 840
44. "Supersoft X-ray sources and the progenitors of Type Ia supernovae."  
Podsiadlowski, Ph., 2010, *AN*, 331, 218
45. "Hot subdwarfs in binary systems and the nature of their unseen companions."  
Geier, S., et al., 2010, *Ap&SS*, 329, 91

46. “The formation of hot subdwarf stars and its implications for the UV-upturn phenomenon of elliptical galaxies.”  
Zhanwen, H., Podsiadlowski, Ph., & Lynas-Gray, A., 2010, *Ap&SS*, 329, 41
47. “Helium-rich hot subdwarfs and single low-mass white dwarfs: formation mechanisms and further implications.”  
Justham, S., Podsiadlowski, Ph., Zhanwen, H., & Wolf, C., 2010, *Ap&SS*, 329, 3
48. “Observations of Doppler Boosting in Kepler Light Curves.”  
van Kerkwijk, M. H., Rappaport, S., Breton, R. P., Justham, S., Podsiadlowski, Ph., & Han, Z., 2010, *ApJ*, 715, 51
49. “Further Evidence for the Bimodal Distribution of Neutron-star Masses.”  
Schwab, J., Podsiadlowski, Ph., & Rappaport, S., 2010, *ApJ*, 719, 722
50. “Spectroscopic Discovery of the Broad-Lined Type Ic Supernova 2010bh Associated with the Low-Redshift GRB 100316D.”  
Chornock, R., et al., 2010, *ApJL*, submitted [arXiv:1004.2262]
51. “Simplified Hydrostatic Carbon Burning in White Dwarf Interiors.”  
Förster, F., Lesaffre, P., Podsiadlowski, Ph., 2010, *ApJS*, 190, 334
52. “On the formation of single and binary helium-rich sdO stars.”  
Justham, S., Podsiadlowski, Ph., & Han, Z., 2011, *MNRAS*, 410, 984
53. “Long duration gamma-ray bursts: hydrodynamic instabilities in collapsar disks.”  
Taylor, P. A., Miller, J. C., & Podsiadlowski, Ph., 2011, *MNRAS*, 410, 2385
54. “LMXB and IMXB Evolution: I. The Binary Radio Pulsar PSR J1614-2230.”  
Lin, J., Rappaport, S., Podsiadlowski, Ph., Nelson, L., Paxton, B., & Todorov, P. 2011, *ApJ*, 732, 70 [arXiv1012.1877]
55. “On the nature and evolution of the unique binary pulsar J1903+0327.”  
Freire, P. C. C., et al., 2011, *MNRAS*, 412, 2763 [arXiv:1011.5809]
56. “Galaxy Zoo Supernovae.”  
Smith, A. M., et al., 2011, *MNRAS*, 412, 1309 [arXiv:1011.2199]
57. “The Subluminous and Peculiar Type Ia Supernova PTF 09dav.”  
Sullivan, M., et al., 2011, *ApJ*, 732, 118
58. “Connecting RS Ophiuchi to [some] type Ia supernovae.”  
Patat, F., Chugai, N. N., Podsiadlowski, Ph., Mason, E., Melo, C., & Pasquini, L., 2011, *A&A*, 530A, 63
59. “A Photometric Redshift of  $z \sim 9.4$  for GRB 090429B.”  
Cucchiara, A., et al., 2011, *ApJ*, 736, 7
60. “The Spectroscopic Classification and Explosion Properties of SN2009nz Associated with GRB091127 at  $z=0.490$ .”  
Berger, E., Chornock, R., Holmes, T. R., Foley, R. J., Cucchiara, A., Wolf, C., Podsiadlowski, Ph., Fox, D. B., Roth, K. C., 2011, *ApJ*, 743, 204 [arXiv1106.3073]
61. “PTF10ops – a subluminous, normal-width lightcurve Type Ia supernova in the middle of nowhere.”  
Maguire, K., et al., 2011, *MNRAS*, 418, 747
62. “Two Populations of X-ray Pulsars Produced by Two Types of Supernovae.”  
Knigge, C., Coe, M. J., & Podsiadlowski, Ph., 2011, *Nat*, 479, 372

63. “Supernova SN 2011fe from an exploding carbon-oxygen white dwarf star.”  
Nugent, P. E., et al., 2011, *Nat*, 480, 344
64. “Exclusion of a luminous red giant as a companion star to the progenitor of supernova SN 2011fe.”  
Li, W., et al., 2011, *Nat*, 480, 348
65. “Mass Transfer in Mira-type Binaries.”  
Mohamed, S., & Podsiadlowski, Ph., 2012, *BaltA*, 21, 88
66. “Early Radio and X-Ray Observations of the Youngest nearby Type Ia Supernova PTF 11kly (SN 2011fe).”  
Horesh, A., et al., 2012, *ApJ*, 746, 21
67. “PTF 11kx: A Type Ia Supernova with a Symbiotic Nova Progenitor.”  
Dilday, B., et al., 2012, *Science*, 337, 942
68. “A Jet Break in the X-Ray Light Curve of Short GRB 111020A: Implications for Energetics and Rates.”  
Fong, W., Berger, E., Margutti, R., Zauderer, B. A., Troja, E., Czekala, I., Chornock, R., Gehrels, N., Sakamoto, T., Fox, D. B., Podsiadlowski, Ph., 2012, *ApJ*, 756, 189
69. “Hunting for the Progenitor of SN 1006: High-resolution Spectroscopic Search with the FLAMES Instrument.”  
Kerzendorf, W. E., Schmidt, B. P., Laird, J. B., Podsiadlowski, Ph., Bessell, M. S., 2012, *ApJ*, 756, 189
70. “Hubble Space Telescope studies of low-redshift Type Ia supernovae: evolution with redshift and ultraviolet spectral trends.”  
Maguire, K., et al., 2012, 426, 2359
71. “Common envelope evolution: where we stand and how we can move forward.”  
Ivanova, N., et al., 2013, *A&ARv*, 21, 59
72. “Dust Formation in the Ejecta of Common Envelope Systems.”  
Lü, G., Zhu, C., Podsiadlowski, Ph., 2013, *ApJ*, 768, 193
73. “Locations of Peculiar Supernovae as a Diagnostic of Their Origins.”  
Yuan, F., Kobayashi, C., Schmidt, B. P., Podsiadlowski, Ph., Sim, S. A., Scalzo, R. A., 2013, *ApJ*, 432, 1680 [arXiv1304.2400]
74. “A High-Resolution Spectroscopic Search for the Remaining Donor for Tycho’s Supernova.”  
Kerzendorf, W., et al., 2013, *ApJ*, 774, 99 [arXiv1210.2713]
75. “The orbital periods of subdwarf B binaries produced by the first stable Roche Lobe overflow channel.”  
Chen, X., Han, Z., Deca, J., Podsiadlowski, Ph., 2013, *MNRAS*, 434, 186
76. “A statistical analysis of circumstellar material in Type Ia supernovae.”  
Maguire, K., et al., 2013, *MNRAS*, 436, 222
77. “Ultra-stripped Type Ic Supernovae from Close Binary Evolution.”  
Tauris, T. M., Langer, N., Moriya, T. J., Podsiadlowski, Ph., Yoon, S.-C., Blinnikov, S. I., 2013, *ApJ*, 778, 23
78. “Constraining the Spin-down Timescale of the White Dwarf Progenitors of Type Ia Supernovae.”  
Meng, X., Podsiadlowski, Ph., 2013, *ApJ*, 778, 35

79. “The structure and fate of white dwarf merger remnants.”  
Dan, M., Rosswog, S., Brueggen, M., Podsiadlowski, Ph., 2014, MNRAS, 438, 14  
[arXiv:1308.1667]
80. “The Birth Rate of SNe Ia from Hybrid CONe White Dwarfs.”  
Meng, X., Podsiadlowski, Ph., 2014, ApJ, 789, 45
81. “On the role of recombination in common-envelope ejections.”  
Ivanova, N., Justham, S., Podsiadlowski, Ph., 2014, ApJ, submitted [arXiv:1409.3260]
82. “Luminous Blue Variables and superluminous supernovae from binary mergers.”  
Justham, S., Podsiadlowski, Ph., Vink, J. S., 2014, ApJ, in press