

# Eddie Baron

## Publications

Google Scholar h-index: 72

### Refereed Journal Articles

- [1] K. Azalee Bostroem, Luc Dessart, D. John Hillier, Michael Lundquist, et al. “SN 2022acko: The First Early Far-ultraviolet Spectra of a Type IIP Supernova”. In: *ApJ* 953.2, L18 (Aug. 2023), p. L18. DOI: [10.3847/2041-8213/ace31c](https://doi.org/10.3847/2041-8213/ace31c). arXiv: [2305.01654](https://arxiv.org/abs/2305.01654) [astro-ph.HE].
- [2] Sudeshna Chakraborty, Benjamin Sadler, Peter Hoeflich, Eric Hsiao, et al. “Type Ia Supernova Progenitor Properties and Their Host Galaxies”. In: *arXiv e-prints*, arXiv:2311.03473 (Nov. 2023), arXiv:2311.03473. DOI: [10.48550/arXiv.2311.03473](https://doi.org/10.48550/arXiv.2311.03473). arXiv: [2311.03473](https://arxiv.org/abs/2311.03473) [astro-ph.HE].
- [3] J. M. DerKacy, C. Ashall, P. Hoeflich, E. Baron, et al. “JWST Low-resolution MIRI Spectral Observations of SN 2021aefx: High-density Burning in a Type Ia Supernova”. In: *ApJ* 945.1, L2 (Mar. 2023), p. L2. DOI: [10.3847/2041-8213/acb8a8](https://doi.org/10.3847/2041-8213/acb8a8). arXiv: [2301.03647](https://arxiv.org/abs/2301.03647) [astro-ph.HE].
- [4] J. M. DerKacy, C. Ashall, P. Hoeflich, E. Baron, et al. “JWST MIRI/MRS Observations and Spectral Models of the Under-luminous Type Ia Supernova 2022xkq”. In: *arXiv e-prints*, arXiv:2310.09153 (Oct. 2023), arXiv:2310.09153. DOI: [10.48550/arXiv.2310.09153](https://doi.org/10.48550/arXiv.2310.09153). arXiv: [2310.09153](https://arxiv.org/abs/2310.09153) [astro-ph.HE].
- [5] Dhvanil D. Desai, Chris Ashall, Benjamin J. Shappee, Nidia Morrell, et al. “Fast and not-so-furious: Case study of the fast and faint Type IIb SN 2021bxu”. In: *MNRAS* 524.1 (Sept. 2023), pp. 767–785. DOI: [10.1093/mnras/stad1932](https://doi.org/10.1093/mnras/stad1932). arXiv: [2303.13581](https://arxiv.org/abs/2303.13581) [astro-ph.HE].
- [6] K. Ertini, G. Folatelli, L. Martinez, M. C. Bersten, et al. “SN 2021gno: a calcium-rich transient with double-peaked light curves”. In: *MNRAS* 526.1 (Nov. 2023), pp. 279–298. DOI: [10.1093/mnras/stad2705](https://doi.org/10.1093/mnras/stad2705). arXiv: [2309.07800](https://arxiv.org/abs/2309.07800) [astro-ph.HE].
- [7] S. Holmbo, M. D. Stritzinger, E. Karamehmetoglu, C. R. Burns, et al. “The Carnegie Supernova Project I. Spectroscopic analysis of stripped-envelope supernovae”. In: *A&A* 675, A83 (July 2023), A83. DOI: [10.1051/0004-6361/202245334](https://doi.org/10.1051/0004-6361/202245334). arXiv: [2302.11304](https://arxiv.org/abs/2302.11304) [astro-ph.HE].
- [8] Sahana Kumar, Eric Y. Hsiao, C. Ashall, M. M. Phillips, et al. “Near-infrared and Optical Nebular-phase Spectra of Type Ia Supernovae SN 2013aa and SN 2017cbv in NGC 5643”. In: *ApJ* 945.1, 27 (Mar. 2023), p. 27. DOI: [10.3847/1538-4357/acad73](https://doi.org/10.3847/1538-4357/acad73). arXiv: [2210.06993](https://arxiv.org/abs/2210.06993) [astro-ph.HE].

- [9] Lindsey A. Kwok, Saurabh W. Jha, Tea Temim, Ori D. Fox, et al. “A JWST Near-and Mid-infrared Nebular Spectrum of the Type Ia Supernova 2021aefx”. In: *ApJ* 944.1, L3 (Feb. 2023), p. L3. DOI: [10.3847/2041-8213/acb4ec](https://doi.org/10.3847/2041-8213/acb4ec). arXiv: [2211.00038](https://arxiv.org/abs/2211.00038) [[astro-ph.HE](#)].
- [10] Jing Lu, Eric Y. Hsiao, Mark M. Phillips, Christopher R. Burns, et al. “Carnegie Supernova Project. II. Near-infrared Spectral Diversity and Template of Type Ia Supernovae”. In: *ApJ* 948.1, 27 (May 2023), p. 27. DOI: [10.3847/1538-4357/acc100](https://doi.org/10.3847/1538-4357/acc100). arXiv: [2211.05998](https://arxiv.org/abs/2211.05998) [[astro-ph.HE](#)].
- [11] M. D. Stritzinger, S. Holmbo, N. Morrell, M. M. Phillips, et al. “The Carnegie Supernova Project I. Optical spectroscopy of stripped-envelope supernovae”. In: *A&A* 675, A82 (July 2023), A82. DOI: [10.1051/0004-6361/202243376](https://doi.org/10.1051/0004-6361/202243376). arXiv: [2302.11303](https://arxiv.org/abs/2302.11303) [[astro-ph.HE](#)].
- [12] Maximilian D. Stritzinger, Eddie Baron, Francesco Taddia, Chris R. Burns, et al. “The carbon-rich type Ic supernova 2016adj in the iconic dust lane of Centaurus A: signatures of interaction with circumstellar hydrogen?” In: *arXiv e-prints*, arXiv:2309.05031 (Sept. 2023), arXiv:2309.05031. DOI: [10.48550/arXiv.2309.05031](https://doi.org/10.48550/arXiv.2309.05031). arXiv: [2309.05031](https://arxiv.org/abs/2309.05031) [[astro-ph.HE](#)].
- [13] Syed A. Uddin, Christopher R. Burns, Mark M. Phillips, Nicholas B. Suntzeff, et al. “Carnegie Supernova Project-I and -II: Measurements of  $H_0$  using Cepheid, TRGB, and SBF Distance Calibration to Type Ia Supernovae”. In: *arXiv e-prints*, arXiv:2308.01875 (Aug. 2023), arXiv:2308.01875. DOI: [10.48550/arXiv.2308.01875](https://doi.org/10.48550/arXiv.2308.01875). arXiv: [2308.01875](https://arxiv.org/abs/2308.01875) [[astro-ph.CO](#)].
- [14] Danfeng Xiang, Xiaofeng Wang, Xinghan Zhang, Hanna Sai, et al. “SN 2018hna: Adding a piece to the puzzles of the explosion of blue supergiants”. In: *MNRAS* 520.2 (Apr. 2023), pp. 2965–2982. DOI: [10.1093/mnras/stad340](https://doi.org/10.1093/mnras/stad340). arXiv: [2301.09953](https://arxiv.org/abs/2301.09953) [[astro-ph.HE](#)].
- [15] Zach Yarbrough, E. Baron, James M. DerKacy, I. Washington, P. Hoeflich, and Anthony Burrow. “Direct analysis of the broad-line SN 2019ein: connection with the core-normal SN 2011fe”. In: *MNRAS* 521.3 (May 2023), pp. 3873–3881. DOI: [10.1093/mnras/stad758](https://doi.org/10.1093/mnras/stad758). arXiv: [2303.06197](https://arxiv.org/abs/2303.06197) [[astro-ph.HE](#)].
- [16] C. Ashall, J. Lu, B. J. Shappee, C. R. Burns, et al. “A Speed Bump: SN 2021aefx Shows that Doppler Shift Alone Can Explain Early Excess Blue Flux in Some Type Ia Supernovae”. In: *ApJ* 932.1, L2 (June 2022), p. L2. DOI: [10.3847/2041-8213/ac7235](https://doi.org/10.3847/2041-8213/ac7235). arXiv: [2205.00606](https://arxiv.org/abs/2205.00606) [[astro-ph.HE](#)].
- [17] W. B. Hoogendam, C. Ashall, L. Galbany, B. J. Shappee, et al. “A Tale of Two Type Ia Supernovae: The Fast-declining Siblings SNe 2015bo and 1997cn”. In: *ApJ* 928.2, 103 (Apr. 2022), p. 103. DOI: [10.3847/1538-4357/ac54aa](https://doi.org/10.3847/1538-4357/ac54aa). arXiv: [2109.14644](https://arxiv.org/abs/2109.14644) [[astro-ph.HE](#)].
- [18] T. E. Müller-Bravo, L. Galbany, E. Karamehmetoglu, M. Stritzinger, et al. “Testing the homogeneity of type Ia Supernovae in near-infrared for accurate distance estimations”. In: *A&A* 665, A123 (Sept. 2022), A123. DOI: [10.1051/0004-6361/202243845](https://doi.org/10.1051/0004-6361/202243845). arXiv: [2207.04780](https://arxiv.org/abs/2207.04780) [[astro-ph.CO](#)].

- [19] P. J. Pessi, E. Y. Hsiao, G. Folatelli, J. P. Anderson, et al. “Carnegie Supernova Project: kinky i-band light curves of Type Ia supernovae”. In: *MNRAS* 510.4 (Mar. 2022), pp. 4929–4942. DOI: [10.1093/mnras/stab3593](https://doi.org/10.1093/mnras/stab3593). arXiv: [2112.03122 \[astro-ph.CO\]](https://arxiv.org/abs/2112.03122).
- [20] M. M. Phillips, C. Ashall, Christopher R. Burns, Carlos Contreras, et al. “The Absolute Magnitudes of 1991T-like Supernovae”. In: *ApJ* 938.1, 47 (Oct. 2022), p. 47. DOI: [10.3847/1538-4357/ac9305](https://doi.org/10.3847/1538-4357/ac9305). arXiv: [2209.08031 \[astro-ph.HE\]](https://arxiv.org/abs/2209.08031).
- [21] M. Shahbandeh, E. Y. Hsiao, C. Ashall, J. Teffs, et al. “Carnegie Supernova Project-II: Near-infrared Spectroscopy of Stripped-envelope Core-collapse Supernovae”. In: *ApJ* 925.2, 175 (Feb. 2022), p. 175. DOI: [10.3847/1538-4357/ac4030](https://doi.org/10.3847/1538-4357/ac4030). arXiv: [2110.12083 \[astro-ph.HE\]](https://arxiv.org/abs/2110.12083).
- [22] Xinghan Zhang, Xiaofeng Wang, Hanna Sai, Jun Mo, et al. “SN 2019va: a Type IIP Supernova with Large Influence of Nickel-56 Decay on the Plateau-phase Light Curve”. In: *MNRAS* 513.3 (July 2022), pp. 4556–4572. DOI: [10.1093/mnras/stac1166](https://doi.org/10.1093/mnras/stac1166). arXiv: [2204.13970 \[astro-ph.HE\]](https://arxiv.org/abs/2204.13970).
- [23] Xinghan Zhang, Xiaofeng Wang, Hanna Sai, Maria Niculescu-Duvaz, et al. “SN 2018hfm: a low-energy Type II supernova with prominent signatures of circumstellar interaction and dust formation”. In: *MNRAS* 509.2 (Jan. 2022), pp. 2013–2032. DOI: [10.1093/mnras/stab3007](https://doi.org/10.1093/mnras/stab3007). arXiv: [2110.10440 \[astro-ph.HE\]](https://arxiv.org/abs/2110.10440).
- [24] C. Ashall, J. Lu, E. Y. Hsiao, P. Hoeflich, et al. “Carnegie Supernova Project: The First Homogeneous Sample of Super-Chandrasekhar-mass/2003fg-like Type Ia Supernovae”. In: *ApJ* 922.2, 205 (Dec. 2021), p. 205. DOI: [10.3847/1538-4357/ac19ac](https://doi.org/10.3847/1538-4357/ac19ac). arXiv: [2106.12140 \[astro-ph.SR\]](https://arxiv.org/abs/2106.12140).
- [25] P. H. Hauschildt and E. Baron. “A 3D radiative transfer framework: XII. Many-core, vector and GPU methods”. In: *Astronomy and Computing* 35, 100450 (Apr. 2021), p. 100450. DOI: [10.1016/j.ascom.2021.100450](https://doi.org/10.1016/j.ascom.2021.100450). arXiv: [2102.01734 \[astro-ph.SR\]](https://arxiv.org/abs/2102.01734).
- [26] P. Hoeflich, C. Ashall, S. Bose, E. Baron, et al. “Measuring an Off-center Detonation through Infrared Line Profiles: The Peculiar Type Ia Supernova SN 2020qxp/ASASSN-20jq”. In: *ApJ* 922.2, 186 (Dec. 2021), p. 186. DOI: [10.3847/1538-4357/ac250d](https://doi.org/10.3847/1538-4357/ac250d). arXiv: [2109.03359 \[astro-ph.SR\]](https://arxiv.org/abs/2109.03359).
- [27] J. Lu, C. Ashall, E. Y. Hsiao, P. Hoeflich, et al. “ASASSN-15hy: An Underluminous, Red 03fg-like Type Ia Supernova”. In: *ApJ* 920.2, 107 (Oct. 2021), p. 107. DOI: [10.3847/1538-4357/ac1606](https://doi.org/10.3847/1538-4357/ac1606). arXiv: [2107.08150 \[astro-ph.HE\]](https://arxiv.org/abs/2107.08150).
- [28] Xiangyun Zeng, Xiaofeng Wang, Ali Esamdin, Craig Pellegrino, et al. “SN 2017hpa: A Nearby Carbon-rich Type Ia Supernova with a Large Velocity Gradient”. In: *ApJ* 909.2, 176 (Mar. 2021), p. 176. DOI: [10.3847/1538-4357/abdeb9](https://doi.org/10.3847/1538-4357/abdeb9). arXiv: [2101.08512 \[astro-ph.HE\]](https://arxiv.org/abs/2101.08512).
- [29] C. Ashall, J. Lu, C. Burns, E. Y. Hsiao, et al. “Carnegie Supernova Project-II: A New Method to Photometrically Identify Sub-types of Extreme Type Ia Supernovae”. In: *ApJ* 895.1, L3 (May 2020), p. L3. DOI: [10.3847/2041-8213/ab8e37](https://doi.org/10.3847/2041-8213/ab8e37). arXiv: [2003.11121 \[astro-ph.HE\]](https://arxiv.org/abs/2003.11121).

- [30] K. A. Bostroem, S. Valenti, D. J. Sand, J. E. Andrews, et al. “Discovery and Rapid Follow-up Observations of the Unusual Type II SN 2018ivc in NGC 1068”. In: *ApJ* 895.1, 31 (May 2020), p. 31. DOI: [10.3847/1538-4357/ab8945](https://doi.org/10.3847/1538-4357/ab8945). arXiv: [1909.07304](https://arxiv.org/abs/1909.07304) [astro-ph.HE].
- [31] Anthony Burrow, E. Baron, Chris Ashall, Christopher R. Burns, et al. “Carnegie Supernova Project: Classification of Type Ia Supernovae”. In: *ApJ* 901.2, 154 (Oct. 2020), p. 154. DOI: [10.3847/1538-4357/abafa2](https://doi.org/10.3847/1538-4357/abafa2). arXiv: [2008.07636](https://arxiv.org/abs/2008.07636) [astro-ph.HE].
- [32] James M. DerKacy, E. Baron, David Branch, Peter Hoeflich, Peter Hauschmidt, Peter J. Brown, and Lifan Wang. “Ultraviolet Line Identifications and Spectral Formation Near Max Light in Type Ia Supernova 2011fe”. In: *ApJ* 901.1, 86 (Sept. 2020), p. 86. DOI: [10.3847/1538-4357/abae67](https://doi.org/10.3847/1538-4357/abae67). arXiv: [2008.04402](https://arxiv.org/abs/2008.04402) [astro-ph.HE].
- [33] E. Y. Hsiao, P. Hoeflich, C. Ashall, J. Lu, et al. “Carnegie Supernova Project II: The Slowest Rising Type Ia Supernova LSQ14fmg and Clues to the Origin of Super-Chandrasekhar/03fg-like Events”. In: *ApJ* 900.2, 140 (Sept. 2020), p. 140. DOI: [10.3847/1538-4357/abaf4c](https://doi.org/10.3847/1538-4357/abaf4c). arXiv: [2008.05614](https://arxiv.org/abs/2008.05614) [astro-ph.HE].
- [34] Wynn V. Jacobson-Galán, Raffaella Margutti, Charles D. Kilpatrick, Daichi Hiramatsu, et al. “SN 2019ehk: A Double-peaked Ca-rich Transient with Luminous X-Ray Emission and Shock-ionized Spectral Features”. In: *ApJ* 898.2, 166 (Aug. 2020), p. 166. DOI: [10.3847/1538-4357/ab9e66](https://doi.org/10.3847/1538-4357/ab9e66). arXiv: [2005.01782](https://arxiv.org/abs/2005.01782) [astro-ph.HE].
- [35] W. L. Lin, X. F. Wang, W. X. Li, J. J. Zhang, et al. “SN 2018hti: a nearby superluminous supernova discovered in a metal-poor galaxy”. In: *MNRAS* 497.1 (Sept. 2020), pp. 318–335. DOI: [10.1093/mnras/staa1918](https://doi.org/10.1093/mnras/staa1918). arXiv: [2006.16443](https://arxiv.org/abs/2006.16443) [astro-ph.HE].
- [36] M. D. Stritzinger, F. Taddia, M. Fraser, T. M. Tauris, et al. “The Carnegie Supernova Project II. Observations of the intermediate-luminosity red transient SNhunt120”. In: *A&A* 639, A103 (July 2020), A103. DOI: [10.1051/0004-6361/202038018](https://doi.org/10.1051/0004-6361/202038018). arXiv: [2005.00319](https://arxiv.org/abs/2005.00319) [astro-ph.HE].
- [37] M. D. Stritzinger, F. Taddia, M. Fraser, T. M. Tauris, et al. “The Carnegie Supernova Project II. Observations of the luminous red nova AT 2014ej”. In: *A&A* 639, A104 (July 2020), A104. DOI: [10.1051/0004-6361/202038019](https://doi.org/10.1051/0004-6361/202038019). arXiv: [2005.00076](https://arxiv.org/abs/2005.00076) [astro-ph.HE].
- [38] M. D. Stritzinger, F. Taddia, S. Holmbo, E. Baron, et al. “The Carnegie Supernova Project II. Early observations and progenitor constraints of the Type Ib supernova LSQ13abf”. In: *A&A* 634, A21 (Feb. 2020), A21. DOI: [10.1051/0004-6361/201936619](https://doi.org/10.1051/0004-6361/201936619). arXiv: [1911.04564](https://arxiv.org/abs/1911.04564) [astro-ph.HE].
- [39] Jujia Zhang, Xiaofeng Wang, Vinkó József, Qian Zhai, et al. “SN 2018zd: an unusual stellar explosion as part of the diverse Type II Supernova landscape”. In: *MNRAS* 498.1 (Oct. 2020), pp. 84–100. DOI: [10.1093/mnras/staa2273](https://doi.org/10.1093/mnras/staa2273). arXiv: [2007.14348](https://arxiv.org/abs/2007.14348) [astro-ph.HE].
- [40] C. Ashall, P. Hoeflich, E. Y. Hsiao, M. M. Phillips, et al. “A Physical Basis for the H-band Blue-edge Velocity and Light-curve Shape Correlation in Context of Type Ia Supernova Explosion Physics”. In: *ApJ* 878.2, 86 (June 2019), p. 86. DOI: [10.3847/1538-4357/ab204b](https://doi.org/10.3847/1538-4357/ab204b). arXiv: [1904.01633](https://arxiv.org/abs/1904.01633) [astro-ph.HE].

- [41] C. Ashall, E. Y. Hsiao, P. Hoeflich, M. Stritzinger, et al. “Carnegie Supernova Project-II: Using Near-infrared Spectroscopy to Determine the Location of the Outer  $^{56}\text{Ni}$  in Type Ia Supernovae”. In: *ApJ* 875.2, L14 (Apr. 2019), p. L14. doi: [10.3847/2041-8213/ab1654](https://doi.org/10.3847/2041-8213/ab1654). arXiv: [1902.10088 \[astro-ph.HE\]](https://arxiv.org/abs/1902.10088).
- [42] S. Davis, E. Y. Hsiao, C. Ashall, P. Hoeflich, et al. “Carnegie Supernova Project-II: Near-infrared Spectroscopic Diversity of Type II Supernovae”. In: *ApJ* 887.1, 4 (Dec. 2019), p. 4. doi: [10.3847/1538-4357/ab4c40](https://doi.org/10.3847/1538-4357/ab4c40). arXiv: [1910.03410 \[astro-ph.HE\]](https://arxiv.org/abs/1910.03410).
- [43] G. Dimitriadis, R. J. Foley, A. Rest, D. Kasen, et al. “K2 Observations of SN 2018oh Reveal a Two-component Rising Light Curve for a Type Ia Supernova”. In: *ApJ* 870.1, L1 (Jan. 2019), p. L1. doi: [10.3847/2041-8213/aaedb0](https://doi.org/10.3847/2041-8213/aaedb0). arXiv: [1811.10061 \[astro-ph.HE\]](https://arxiv.org/abs/1811.10061).
- [44] L. Galbany, C. Ashall, P. Höflich, S. González-Gaitán, et al. “Evidence for a Chandrasekhar-mass explosion in the Ca-strong 1991bg-like type Ia supernova 2016hnk”. In: *A&A* 630, A76 (Oct. 2019), A76. doi: [10.1051/0004-6361/201935537](https://doi.org/10.1051/0004-6361/201935537). arXiv: [1904.10034 \[astro-ph.SR\]](https://arxiv.org/abs/1904.10034).
- [45] S. Holmbo, M. D. Stritzinger, B. J. Shappee, M. A. Tucker, et al. “Discovery and progenitor constraints on the Type Ia supernova 2013gy”. In: *A&A* 627, A174 (July 2019), A174. doi: [10.1051/0004-6361/201834389](https://doi.org/10.1051/0004-6361/201834389). arXiv: [1809.01359 \[astro-ph.HE\]](https://arxiv.org/abs/1809.01359).
- [46] E. Y. Hsiao, M. M. Phillips, G. H. Marion, R. P. Kirshner, et al. “Carnegie Supernova Project-II: The Near-infrared Spectroscopy Program”. In: *PASP* 131.995 (Jan. 2019), p. 014002. doi: [10.1088/1538-3873/aae961](https://doi.org/10.1088/1538-3873/aae961). arXiv: [1810.08213 \[astro-ph.SR\]](https://arxiv.org/abs/1810.08213).
- [47] W. Li, X. Wang, J. Vinkó, J. Mo, et al. “Photometric and Spectroscopic Properties of Type Ia Supernova 2018oh with Early Excess Emission from the Kepler 2 Observations”. In: *ApJ* 870.1, 12 (Jan. 2019), p. 12. doi: [10.3847/1538-4357/aaec74](https://doi.org/10.3847/1538-4357/aaec74). arXiv: [1811.10056 \[astro-ph.SR\]](https://arxiv.org/abs/1811.10056).
- [48] Sarah Peacock, Travis Barman, Evgenya L. Shkolnik, Peter H. Hauschildt, and E. Baron. “Predicting the Extreme Ultraviolet Radiation Environment of Exoplanets around Low-mass Stars: The TRAPPIST-1 System”. In: *ApJ* 871.2, 235 (Feb. 2019), p. 235. doi: [10.3847/1538-4357/aaf891](https://doi.org/10.3847/1538-4357/aaf891). arXiv: [1812.06159 \[astro-ph.SR\]](https://arxiv.org/abs/1812.06159).
- [49] Sarah Peacock, Travis Barman, Evgenya L. Shkolnik, Peter H. Hauschildt, E. Baron, and Birgit Fuhrmeister. “Predicting the Extreme Ultraviolet Radiation Environment of Exoplanets around Low-mass Stars: GJ 832, GJ 176, and GJ 436”. In: *ApJ* 886.2, 77 (Dec. 2019), p. 77. doi: [10.3847/1538-4357/ab4f6f](https://doi.org/10.3847/1538-4357/ab4f6f). arXiv: [1910.08053 \[astro-ph.SR\]](https://arxiv.org/abs/1910.08053).
- [50] M. M. Phillips, Carlos Contreras, E. Y. Hsiao, Nidia Morrell, et al. “Carnegie Supernova Project-II: Extending the Near-infrared Hubble Diagram for Type Ia Supernovae to  $z \sim 0.1$ ”. In: *PASP* 131.995 (Jan. 2019), p. 014001. doi: [10.1088/1538-3873/aae8bd](https://doi.org/10.1088/1538-3873/aae8bd). arXiv: [1810.09252 \[astro-ph.HE\]](https://arxiv.org/abs/1810.09252).
- [51] B. J. Shappee, T. W. -S. Holoien, M. R. Drout, K. Auchettl, et al. “Seeing Double: ASASSN-18bt Exhibits a Two-component Rise in the Early-time K2 Light Curve”. In: *ApJ* 870.1, 13 (Jan. 2019), p. 13. doi: [10.3847/1538-4357/aaec79](https://doi.org/10.3847/1538-4357/aaec79). arXiv: [1807.11526 \[astro-ph.HE\]](https://arxiv.org/abs/1807.11526).

- [52] Danfeng Xiang, Xiaofeng Wang, Jun Mo, Lingjun Wang, et al. “Observations of SN 2017ein Reveal Shock Breakout Emission and a Massive Progenitor Star for a Type Ic Supernova”. In: *ApJ* 871.2, 176 (Feb. 2019), p. 176. DOI: [10.3847/1538-4357/aaf8b0](https://doi.org/10.3847/1538-4357/aaf8b0). arXiv: [1812.03076 \[astro-ph.HE\]](https://arxiv.org/abs/1812.03076).
- [53] Christopher Cain, E. Baron, M. M. Phillips, Carlos Contreras, et al. “Investigating the Unusual Spectroscopic Time Evolution in SN 2012fr”. In: *ApJ* 869.2, 162 (Dec. 2018), p. 162. DOI: [10.3847/1538-4357/aaef34](https://doi.org/10.3847/1538-4357/aaef34). arXiv: [1810.01149 \[astro-ph.SR\]](https://arxiv.org/abs/1810.01149).
- [54] Carlos Contreras, M. M. Phillips, Christopher R. Burns, Anthony L. Piro, et al. “SN 2012fr: Ultraviolet, Optical, and Near-infrared Light Curves of a Type Ia Supernova Observed within a Day of Explosion”. In: *ApJ* 859.1, 24 (May 2018), p. 24. DOI: [10.3847/1538-4357/aabaf8](https://doi.org/10.3847/1538-4357/aabaf8). arXiv: [1803.10095 \[astro-ph.HE\]](https://arxiv.org/abs/1803.10095).
- [55] C. Gall, M. D. Stritzinger, C. Ashall, E. Baron, et al. “Two transitional type Ia supernovae located in the Fornax cluster member NGC 1404: SN 2007on and SN 2011iv”. In: *A&A* 611, A58 (Mar. 2018), A58. DOI: [10.1051/0004-6361/201730886](https://doi.org/10.1051/0004-6361/201730886). arXiv: [1707.03823 \[astro-ph.SR\]](https://arxiv.org/abs/1707.03823).
- [56] Peter W. A. Roming, Eddie Baron, Amanda J. Bayless, Volker Bromm, et al. “Understanding The Death Of Massive Stars Using An Astrophysical Transients Observatory”. In: *Frontiers in Astronomy and Space Sciences* 5, 25 (Aug. 2018), p. 25. DOI: [10.3389/fspas.2018.00025](https://doi.org/10.3389/fspas.2018.00025).
- [57] Maximilian D. Stritzinger, Benjamin J. Shappee, Anthony L. Piro, Christopher Ashall, et al. “Red versus Blue: Early Observations of Thermonuclear Supernovae Reveal Two Distinct Populations?” In: *ApJ* 864.2, L35 (Sept. 2018), p. L35. DOI: [10.3847/2041-8213/aadd46](https://doi.org/10.3847/2041-8213/aadd46). arXiv: [1807.07576 \[astro-ph.HE\]](https://arxiv.org/abs/1807.07576).
- [58] F. Taddia, M. D. Stritzinger, M. Bersten, E. Baron, et al. “The Carnegie Supernova Project I. Analysis of stripped-envelope supernova light curves”. In: *A&A* 609, A136 (Feb. 2018), A136. DOI: [10.1051/0004-6361/201730844](https://doi.org/10.1051/0004-6361/201730844). arXiv: [1707.07614 \[astro-ph.HE\]](https://arxiv.org/abs/1707.07614).
- [59] B. Chen, R. Kantowski, X. Dai, E. Baron, and P. Van der Mark. “Accelerating gravitational microlensing simulations using the Xeon Phi coprocessor”. In: *Astronomy and Computing* 19 (Apr. 2017), pp. 60–65. DOI: [10.1016/j.ascom.2017.03.005](https://doi.org/10.1016/j.ascom.2017.03.005). arXiv: [1703.09707 \[astro-ph.IM\]](https://arxiv.org/abs/1703.09707).
- [60] Brian Friesen, E. Baron, Jerod T. Parrent, R. C. Thomas, et al. “Optical and ultraviolet spectroscopic analysis of SN 2011fe at late times”. In: *MNRAS* 467.2 (May 2017), pp. 2392–2411. DOI: [10.1093/mnras/stx241](https://doi.org/10.1093/mnras/stx241). arXiv: [1607.04784 \[astro-ph.SR\]](https://arxiv.org/abs/1607.04784).
- [61] Jeremy A. Lusk and E. Baron. “Bolometric Light Curves of Peculiar Type II-P Supernovae”. In: *PASP* 129.974 (Apr. 2017), p. 044202. DOI: [10.1088/1538-3873/aa5e49](https://doi.org/10.1088/1538-3873/aa5e49). arXiv: [1608.08631 \[astro-ph.SR\]](https://arxiv.org/abs/1608.08631).
- [62] L. Galbany, M. E. Moreno-Raya, P. Ruiz-Lapuente, J. I. González Hernández, et al. “SN 2014J at M82 - I. A middle-class Type Ia supernova by all spectroscopic metrics”. In: *MNRAS* 457.1 (Mar. 2016), pp. 525–537. DOI: [10.1093/mnras/stw026](https://doi.org/10.1093/mnras/stw026). arXiv: [1510.06596 \[astro-ph.SR\]](https://arxiv.org/abs/1510.06596).

- [63] Patrick Vallely, M. E. Moreno-Raya, E. Baron, Pilar Ruiz-Lapuente, et al. “Supernova 2014J at M82 - II. Direct analysis of a middle-class Type Ia supernova”. In: *MNRAS* 460.2 (Aug. 2016), pp. 1614–1624. DOI: [10.1093/mnras/stw1088](https://doi.org/10.1093/mnras/stw1088).
- [64] E. Baron, P. Hoeflich, Brian Friesen, M. Sullivan, et al. “Spectral models for early time SN 2011fe observations”. In: *MNRAS* 454.3 (Dec. 2015), pp. 2549–2556. DOI: [10.1093/mnras/stv1951](https://doi.org/10.1093/mnras/stv1951). arXiv: [1508.04774 \[astro-ph.SR\]](https://arxiv.org/abs/1508.04774).
- [65] Peter J. Brown, E. Baron, Peter Milne, Peter W. A. Roming, and Lifan Wang. “Theoretical Clues to the Ultraviolet Diversity of Type Ia Supernovae”. In: *ApJ* 809.1, 37 (Aug. 2015), p. 37. DOI: [10.1088/0004-637X/809/1/37](https://doi.org/10.1088/0004-637X/809/1/37). arXiv: [1504.05237 \[astro-ph.SR\]](https://arxiv.org/abs/1504.05237).
- [66] Bin Chen, Ronald Kantowski, Xinyu Dai, Eddie Baron, and Prasad Maddumage. “Algorithms and Programs for Strong Gravitational Lensing In Kerr Space-time Including Polarization”. In: *ApJS* 218.1, 4 (May 2015), p. 4. DOI: [10.1088/0067-0049/218/1/4](https://doi.org/10.1088/0067-0049/218/1/4). arXiv: [1505.02714 \[astro-ph.HE\]](https://arxiv.org/abs/1505.02714).
- [67] D. Jack, E. Baron, and P. H. Hauschildt. “Identification of the feature that causes the I-band secondary maximum of a Type Ia supernova”. In: *MNRAS* 449.4 (June 2015), pp. 3581–3586. DOI: [10.1093/mnras/stv474](https://doi.org/10.1093/mnras/stv474). arXiv: [1503.03088 \[astro-ph.HE\]](https://arxiv.org/abs/1503.03088).
- [68] M. D. Stritzinger, S. Valenti, P. Hoeflich, E. Baron, et al. “Comprehensive observations of the bright and energetic Type Iax SN 2012Z: Interpretation as a Chandrasekhar mass white dwarf explosion”. In: *A&A* 573, A2 (Jan. 2015), A2. DOI: [10.1051/0004-6361/201424168](https://doi.org/10.1051/0004-6361/201424168). arXiv: [1408.1093 \[astro-ph.HE\]](https://arxiv.org/abs/1408.1093).
- [69] E. Baron. “SNe Ia: Can Chandrasekhar mass explosions reproduce the observed zoo?” In: *Nucl. Phys. A* 928 (Aug. 2014), pp. 319–330. DOI: [10.1016/j.nuclphysa.2014.04.026](https://doi.org/10.1016/j.nuclphysa.2014.04.026). arXiv: [1408.4152 \[astro-ph.SR\]](https://arxiv.org/abs/1408.4152).
- [70] M. L. Feo, O. Gonzalez, E. Baron, M. Casado, B. Piña, S. Esplugas, E. Eljarrat, and D. Barceló. “Advanced UV/H<sub>2</sub>O<sub>2</sub> oxidation of deca-bromo diphenyl ether in sediments”. In: *Science of the Total Environment* 479-480 (May 2014), pp. 17–20. DOI: [10.1016/j.scitotenv.2014.01.091](https://doi.org/10.1016/j.scitotenv.2014.01.091).
- [71] Brian Friesen, E. Baron, John P. Wisniewski, Jerod T. Parrent, R. C. Thomas, Timothy R. Miller, and G. H. Marion. “Near-infrared Line Identification in Type Ia Supernovae during the Transitional Phase”. In: *ApJ* 792.2, 120 (Sept. 2014), p. 120. DOI: [10.1088/0004-637X/792/2/120](https://doi.org/10.1088/0004-637X/792/2/120). arXiv: [1407.7732 \[astro-ph.SR\]](https://arxiv.org/abs/1407.7732).
- [72] Peter H. Hauschildt and Edward Baron. “A 3D radiative transfer framework. XI. Multi-level NLTE”. In: *A&A* 566, A89 (June 2014), A89. DOI: [10.1051/0004-6361/201423574](https://doi.org/10.1051/0004-6361/201423574). arXiv: [1404.4376 \[astro-ph.SR\]](https://arxiv.org/abs/1404.4376).
- [73] Karen M. Leighly, Donald M. Terndrup, Eddie Baron, Adrian B. Lucy, Matthias Dietrich, and Sarah C. Gallagher. “Evidence for Active Galactic Nucleus Feedback in the Broad Absorption Lines and Reddening of Mrk 231”. In: *ApJ* 788.2, 123 (June 2014), p. 123. DOI: [10.1088/0004-637X/788/2/123](https://doi.org/10.1088/0004-637X/788/2/123). arXiv: [1404.6795 \[astro-ph.GA\]](https://arxiv.org/abs/1404.6795).

- [74] M. D. Stritzinger, E. Hsiao, S. Valenti, F. Taddia, et al. “Optical and near-IR observations of the faint and fast 2008ha-like supernova 2010ae”. In: *A&A* 561, A146 (Jan. 2014), A146. DOI: [10.1051/0004-6361/201322889](https://doi.org/10.1051/0004-6361/201322889). arXiv: [1311.4525 \[astro-ph.HE\]](https://arxiv.org/abs/1311.4525).
- [75] A. Berkner, P. H. Hauschildt, and E. Baron. “3D radiative transfer effects in parametrized starspots”. In: *A&A* 550, A104 (Feb. 2013), A104. DOI: [10.1051/0004-6361/201220521](https://doi.org/10.1051/0004-6361/201220521).
- [76] Bin Chen, Xinyu Dai, and E. Baron. “Inclination-dependent Active Galactic Nucleus Flux Profiles from Strong Lensing of the Kerr Spacetime”. In: *ApJ* 762.2, 122 (Jan. 2013), p. 122. DOI: [10.1088/0004-637X/762/2/122](https://doi.org/10.1088/0004-637X/762/2/122). arXiv: [1211.2510 \[astro-ph.HE\]](https://arxiv.org/abs/1211.2510).
- [77] Bin Chen, Xinyu Dai, E. Baron, and R. Kantowski. “Effects of Kerr Strong Gravity on Quasar X-Ray Microlensing”. In: *ApJ* 769.2, 131 (June 2013), p. 131. DOI: [10.1088/0004-637X/769/2/131](https://doi.org/10.1088/0004-637X/769/2/131). arXiv: [1211.6487 \[astro-ph.HE\]](https://arxiv.org/abs/1211.6487).
- [78] S. Hachinger, P. A. Mazzali, M. Sullivan, R. S. Ellis, et al. “The UV/optical spectra of the Type Ia supernova SN 2010jn: a bright supernova with outer layers rich in iron-group elements”. In: *MNRAS* 429.3 (Mar. 2013), pp. 2228–2248. DOI: [10.1093/mnras/sts492](https://doi.org/10.1093/mnras/sts492). arXiv: [1208.1267 \[astro-ph.SR\]](https://arxiv.org/abs/1208.1267).
- [79] D. Jack, P. H. Hauschildt, and E. Baron. *Time-dependent radiative transfer with PHOENIX (Corrigendum)*. Astronomy & Astrophysics, Volume 549, id.C1, 1 pp. Jan. 2013. DOI: [10.1051/0004-6361/200810982e](https://doi.org/10.1051/0004-6361/200810982e).
- [80] Peter Lundqvist, Seppo Mattila, Jesper Sollerman, Cecilia Kozma, E. Baron, Nick L. J. Cox, Claes Fransson, Bruno Leibundgut, and Jason Spyromilio. “Hydrogen and helium in the spectra of Type Ia supernovae”. In: *MNRAS* 435.1 (Oct. 2013), pp. 329–345. DOI: [10.1093/mnras/stt1303](https://doi.org/10.1093/mnras/stt1303). arXiv: [1307.4099 \[astro-ph.HE\]](https://arxiv.org/abs/1307.4099).
- [81] E. Baron, P. H. Hauschildt, B. Chen, and S. Knop. “A 3D radiative transfer framework. X. Arbitrary velocity fields in the comoving frame”. In: *A&A* 548, A67 (Dec. 2012), A67. DOI: [10.1051/0004-6361/201219343](https://doi.org/10.1051/0004-6361/201219343). arXiv: [1210.6679 \[astro-ph.SR\]](https://arxiv.org/abs/1210.6679).
- [82] E. Baron, P. Höflich, K. Krisciunas, I. Dominguez, A. M. Khokhlov, M. M. Phillips, N. Suntzeff, and L. Wang. “A Physical Model for SN 2001ay, a Normal, Bright, Extremely Slow Declining Type Ia Supernova”. In: *ApJ* 753.2, 105 (July 2012), p. 105. DOI: [10.1088/0004-637X/753/2/105](https://doi.org/10.1088/0004-637X/753/2/105). arXiv: [1205.0814 \[astro-ph.SR\]](https://arxiv.org/abs/1205.0814).
- [83] Brian Friesen, E. Baron, David Branch, Bin Chen, Jerod T. Parrent, and R. C. Thomas. “Supernova Resonance-scattering Line Profiles in the Absence of a Photosphere”. In: *ApJS* 203.1, 12 (Nov. 2012), p. 12. DOI: [10.1088/0067-0049/203/1/12](https://doi.org/10.1088/0067-0049/203/1/12). arXiv: [1209.3520 \[astro-ph.SR\]](https://arxiv.org/abs/1209.3520).
- [84] C. Inserra, E. Baron, and M. Turatto. “Quantitative photospheric spectral analysis of the Type IIP supernova 2007od”. In: *MNRAS* 422.2 (May 2012), pp. 1178–1185. DOI: [10.1111/j.1365-2966.2012.20691.x](https://doi.org/10.1111/j.1365-2966.2012.20691.x). arXiv: [1202.0756 \[astro-ph.SR\]](https://arxiv.org/abs/1202.0756).
- [85] C. Inserra, M. Turatto, A. Pastorello, M. L. Pumo, et al. “The bright Type IIP SN 2009bw, showing signs of interaction”. In: *MNRAS* 422.2 (May 2012), pp. 1122–1139. DOI: [10.1111/j.1365-2966.2012.20685.x](https://doi.org/10.1111/j.1365-2966.2012.20685.x). arXiv: [1202.0659 \[astro-ph.SR\]](https://arxiv.org/abs/1202.0659).

- [86] D. Jack, P. H. Hauschildt, and E. Baron. “A 3D radiative transfer framework. IX. Time dependence”. In: *A&A* 546, A39 (Oct. 2012), A39. doi: [10.1051/0004-6361/201118152](https://doi.org/10.1051/0004-6361/201118152). arXiv: [1209.5788 \[astro-ph.IM\]](https://arxiv.org/abs/1209.5788).
- [87] D. Jack, P. H. Hauschildt, and E. Baron. “Near-infrared light curves of type Ia supernovae”. In: *A&A* 538, A132 (Feb. 2012), A132. doi: [10.1051/0004-6361/201117271](https://doi.org/10.1051/0004-6361/201117271). arXiv: [1201.1723 \[astro-ph.HE\]](https://arxiv.org/abs/1201.1723).
- [88] J. T. Parrent, D. A. Howell, B. Friesen, R. C. Thomas, et al. “Analysis of the Early-time Optical Spectra of SN 2011fe in M101”. In: *ApJ* 752.2, L26 (June 2012), p. L26. doi: [10.1088/2041-8205/752/2/L26](https://doi.org/10.1088/2041-8205/752/2/L26). arXiv: [1205.6011 \[astro-ph.CO\]](https://arxiv.org/abs/1205.6011).
- [89] Xiaofeng Wang, Lifan Wang, Alexei V. Filippenko, Eddie Baron, et al. “Evidence for Type Ia Supernova Diversity from Ultraviolet Observations with the Hubble Space Telescope”. In: *ApJ* 749.2, 126 (Apr. 2012), p. 126. doi: [10.1088/0004-637X/749/2/126](https://doi.org/10.1088/0004-637X/749/2/126). arXiv: [1110.5809 \[astro-ph.HE\]](https://arxiv.org/abs/1110.5809).
- [90] Brandon A. Doull and E. Baron. “Comparative Analysis of Peculiar Type Ia 1991bg-like Supernovae Spectra”. In: *PASP* 123.905 (July 2011), p. 765. doi: [10.1086/661023](https://doi.org/10.1086/661023). arXiv: [1105.3328 \[astro-ph.SR\]](https://arxiv.org/abs/1105.3328).
- [91] P. H. Hauschildt and E. Baron. “A 3D radiative transfer framework. VIII. OpenCL implementation”. In: *A&A* 533, A127 (Sept. 2011), A127. doi: [10.1051/0004-6361/201117051](https://doi.org/10.1051/0004-6361/201117051).
- [92] D. Jack, P. H. Hauschildt, and E. Baron. “Theoretical light curves of type Ia supernovae”. In: *A&A* 528, A141 (Apr. 2011), A141. doi: [10.1051/0004-6361/201014778](https://doi.org/10.1051/0004-6361/201014778). arXiv: [1105.3330 \[astro-ph.SR\]](https://arxiv.org/abs/1105.3330).
- [93] Soma de, E. Baron, and P. H. Hauschildt. “Hydrogen recombination with multilevel atoms”. In: *MNRAS* 407.1 (Sept. 2010), pp. 658–668. doi: [10.1111/j.1365-2966.2010.16953.x](https://doi.org/10.1111/j.1365-2966.2010.16953.x). arXiv: [1005.0580 \[astro-ph.SR\]](https://arxiv.org/abs/1005.0580).
- [94] Soma de, E. Baron, and P. H. Hauschildt. “On the hydrogen recombination time in Type II supernova atmospheres”. In: *MNRAS* 401.3 (Jan. 2010), pp. 2081–2092. doi: [10.1111/j.1365-2966.2009.15808.x](https://doi.org/10.1111/j.1365-2966.2009.15808.x). arXiv: [0910.0552 \[astro-ph.SR\]](https://arxiv.org/abs/0910.0552).
- [95] P. H. Hauschildt and E. Baron. “A 3D radiative transfer framework. VI. PHOENIX/3D example applications”. In: *A&A* 509, A36 (Jan. 2010), A36. doi: [10.1051/0004-6361/200913064](https://doi.org/10.1051/0004-6361/200913064). arXiv: [0911.3285 \[astro-ph.SR\]](https://arxiv.org/abs/0911.3285).
- [96] P. Höflich, K. Krisciunas, A. M. Khokhlov, E. Baron, G. Folatelli, M. Hamuy, M. M. Phillips, N. Suntzeff, L. Wang, and NSF07-SNIa Collaboration. “Secondary Parameters of Type Ia Supernova Light Curves”. In: *ApJ* 710.1 (Feb. 2010), pp. 444–455. doi: [10.1088/0004-637X/710/1/444](https://doi.org/10.1088/0004-637X/710/1/444). arXiv: [0912.2231 \[astro-ph.CO\]](https://arxiv.org/abs/0912.2231).
- [97] Spencer James and E. Baron. “Searching for Hydrogen in Type Ib Supernovae”. In: *ApJ* 718.2 (Aug. 2010), pp. 957–962. doi: [10.1088/0004-637X/718/2/957](https://doi.org/10.1088/0004-637X/718/2/957). arXiv: [1006.1359 \[astro-ph.SR\]](https://arxiv.org/abs/1006.1359).
- [98] A. M. Seelmann, P. H. Hauschildt, and E. Baron. “A 3D radiative transfer framework . VII. Arbitrary velocity fields in the Eulerian frame”. In: *A&A* 522, A102 (Nov. 2010), A102. doi: [10.1051/0004-6361/201014278](https://doi.org/10.1051/0004-6361/201014278). arXiv: [1007.3419 \[astro-ph.SR\]](https://arxiv.org/abs/1007.3419).

- [99] E. Baron, P. H. Hauschildt, and B. Chen. “A 3D radiative transfer framework. V. Homologous flows”. In: *A&A* 498.3 (May 2009), pp. 987–992. DOI: [10.1051/0004-6361/200911681](https://doi.org/10.1051/0004-6361/200911681). arXiv: [0903.2486 \[astro-ph.SR\]](https://arxiv.org/abs/0903.2486).
- [100] David Branch, Leeann Chau Dang, and E. Baron. “Comparative Direct Analysis of Type Ia Supernova Spectra. V. Insights from a Larger Sample and Quantitative Subclassification”. In: *PASP* 121.877 (Mar. 2009), p. 238. DOI: [10.1086/597788](https://doi.org/10.1086/597788). arXiv: [0902.0745 \[astro-ph.SR\]](https://arxiv.org/abs/0902.0745).
- [101] P. H. Hauschildt and E. Baron. “A 3D radiative transfer framework. IV. Spherical and cylindrical coordinate systems”. In: *A&A* 498.3 (May 2009), pp. 981–985. DOI: [10.1051/0004-6361/200911661](https://doi.org/10.1051/0004-6361/200911661). arXiv: [0903.1949 \[astro-ph.IM\]](https://arxiv.org/abs/0903.1949).
- [102] D. Jack, P. H. Hauschildt, and E. Baron. “Time-dependent radiative transfer with PHOENIX”. In: *A&A* 502.3 (Aug. 2009), pp. 1043–1049. DOI: [10.1051/0004-6361/200810982](https://doi.org/10.1051/0004-6361/200810982). arXiv: [0907.1441 \[astro-ph.IM\]](https://arxiv.org/abs/0907.1441).
- [103] S. Knop, P. H. Hauschildt, and E. Baron. “A new formal solution of the radiative transfer in arbitrary velocity fields”. In: *A&A* 496.1 (Mar. 2009), pp. 295–298. DOI: [10.1051/0004-6361:200810290](https://doi.org/10.1051/0004-6361:200810290). arXiv: [0902.1876 \[astro-ph.SR\]](https://arxiv.org/abs/0902.1876).
- [104] S. Knop, P. H. Hauschildt, and E. Baron. “Comoving-frame radiative transfer in arbitrary velocity fields. II. Large scale applications”. In: *A&A* 501.2 (July 2009), pp. 813–820. DOI: [10.1051/0004-6361/200911793](https://doi.org/10.1051/0004-6361/200911793). arXiv: [0909.4264 \[astro-ph.SR\]](https://arxiv.org/abs/0909.4264).
- [105] Hyun-chul Lee, Guy Worthey, Aaron Dotter, Brian Chaboyer, Darko Jevremović, E. Baron, Michael M. Briley, Jason W. Ferguson, Paula Coelho, and Scott C. Trager. “Stellar Population Models and Individual Element Abundances. II. Stellar Spectra and Integrated Light Models”. In: *ApJ* 694.2 (Apr. 2009), pp. 902–923. DOI: [10.1088/0004-637X/694/2/902](https://doi.org/10.1088/0004-637X/694/2/902). arXiv: [0812.1563 \[astro-ph\]](https://arxiv.org/abs/0812.1563).
- [106] E. Baron, David J. Jeffery, David Branch, Eduardo Bravo, Domingo García-Senz, and Peter H. Hauschildt. “Detailed Spectral Modeling of a Three-dimensional Pulsating Reverse Detonation Model: Too Much Nickel”. In: *ApJ* 672.2 (Jan. 2008), pp. 1038–1042. DOI: [10.1086/524009](https://doi.org/10.1086/524009). arXiv: [0709.4177 \[astro-ph\]](https://arxiv.org/abs/0709.4177).
- [107] Sébastien Bongard, E. Baron, G. Smadja, David Branch, and Peter H. Hauschildt. “Multilayered Spectral Formation in Type Ia Supernovae around Maximum Light”. In: *ApJ* 687.1 (Nov. 2008), pp. 456–465. DOI: [10.1086/590107](https://doi.org/10.1086/590107). arXiv: [0806.3287 \[astro-ph\]](https://arxiv.org/abs/0806.3287).
- [108] David Branch, David J. Jeffery, Jerod Parrent, E. Baron, M. A. Troxel, V. Stanishev, Melissa Keithley, Joshua Harrison, and Christopher Bruner. “Comparative Direct Analysis of Type Ia Supernova Spectra. IV. Postmaximum”. In: *PASP* 120.864 (Feb. 2008), p. 135. DOI: [10.1086/527572](https://doi.org/10.1086/527572). arXiv: [0712.2436 \[astro-ph\]](https://arxiv.org/abs/0712.2436).
- [109] Darrin Casebeer, E. Baron, Karen Leighly, Darko Jevremovic, and David Branch. “A Self-consistent NLTE-Spectra Synthesis Model of FeLoBAL QSOs”. In: *ApJ* 676.2 (Apr. 2008), pp. 857–867. DOI: [10.1086/528671](https://doi.org/10.1086/528671). arXiv: [0801.0321 \[astro-ph\]](https://arxiv.org/abs/0801.0321).

- [110] Aaron Dotter, Brian Chaboyer, Darko Jevremović, Veselin Kostov, E. Baron, and Jason W. Ferguson. “The Dartmouth Stellar Evolution Database”. In: *ApJS* 178.1 (Sept. 2008), pp. 89–101. DOI: [10.1086/589654](https://doi.org/10.1086/589654). arXiv: [0804.4473 \[astro-ph\]](https://arxiv.org/abs/0804.4473).
- [111] A. Gal-Yam, F. Bufano, T. A. Barlow, E. Baron, et al. “GALEX Spectroscopy of SN 2005ay Suggests Ultraviolet Spectral Uniformity among Type II-P Supernovae”. In: *ApJ* 685.2 (Oct. 2008), p. L117. DOI: [10.1086/592744](https://doi.org/10.1086/592744). arXiv: [0806.3276 \[astro-ph\]](https://arxiv.org/abs/0806.3276).
- [112] P. H. Hauschildt, T. Barman, and E. Baron. “Irradiated planets”. In: *Physica Scripta Volume T* 130, 014033 (Aug. 2008), p. 014033. DOI: [10.1088/0031-8949/2008/T130/014033](https://doi.org/10.1088/0031-8949/2008/T130/014033).
- [113] P. H. Hauschildt and E. Baron. “A 3D radiative transfer framework. III. Periodic boundary conditions”. In: *A&A* 490.2 (Nov. 2008), pp. 873–877. DOI: [10.1051/0004-6361:200810239](https://doi.org/10.1051/0004-6361:200810239). arXiv: [0808.0601 \[astro-ph\]](https://arxiv.org/abs/0808.0601).
- [114] Wesley Ketchum, E. Baron, and David Branch. “Detailed Spectral Analysis of the Type Ib Supernova 1999dn. I. Hydrogen-free Models”. In: *ApJ* 674.1 (Feb. 2008), pp. 371–377. DOI: [10.1086/522108](https://doi.org/10.1086/522108). arXiv: [0705.4086 \[astro-ph\]](https://arxiv.org/abs/0705.4086).
- [115] E. Baron, David Branch, and Peter H. Hauschildt. “Reddening, Abundances, and Line Formation in SNe II”. In: *ApJ* 662.2 (June 2007), pp. 1148–1155. DOI: [10.1086/517961](https://doi.org/10.1086/517961). arXiv: [astro-ph/0703068 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0703068).
- [116] E. Baron and P. H. Hauschildt. “A 3D radiative transfer framework. II. Line transfer problems”. In: *A&A* 468.1 (June 2007), pp. 255–261. DOI: [10.1051/0004-6361:20066755](https://doi.org/10.1051/0004-6361:20066755). arXiv: [astro-ph/0703437 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0703437).
- [117] David Branch, M. A. Troxel, David J. Jeffery, Kazuhito Hatano, et al. “Comparative Direct Analysis of Type Ia Supernova Spectra. III. Premaximum”. In: *PASP* 119.857 (July 2007), pp. 709–721. DOI: [10.1086/520553](https://doi.org/10.1086/520553). arXiv: [0706.0081 \[astro-ph\]](https://arxiv.org/abs/0706.0081).
- [118] B. Chen, R. Kantowski, E. Baron, S. Knop, and P. H. Hauschildt. “Steps for solving the radiative transfer equation for arbitrary flows in stationary space-times”. In: *MNRAS* 380.1 (Sept. 2007), pp. 104–112. DOI: [10.1111/j.1365-2966.2007.11652.x](https://doi.org/10.1111/j.1365-2966.2007.11652.x). arXiv: [astro-ph/0603251 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0603251).
- [119] Aaron Dotter, Brian Chaboyer, Jason W. Ferguson, Hyun-chul Lee, Guy Worthey, Darko Jevremović, and E. Baron. “Stellar Population Models and Individual Element Abundances. I. Sensitivity of Stellar Evolution Models”. In: *ApJ* 666.1 (Sept. 2007), pp. 403–412. DOI: [10.1086/519946](https://doi.org/10.1086/519946). arXiv: [0706.0808 \[astro-ph\]](https://arxiv.org/abs/0706.0808).
- [120] Aaron Dotter, Brian Chaboyer, Darko Jevremović, E. Baron, Jason W. Ferguson, Ata Sarajedini, and Jay Anderson. “The ACS Survey of Galactic Globular Clusters. II. Stellar Evolution Tracks, Isochrones, Luminosity Functions, and Synthetic Horizontal-Branch Models”. In: *AJ* 134.1 (July 2007), pp. 376–390. DOI: [10.1086/517915](https://doi.org/10.1086/517915). arXiv: [0706.0847 \[astro-ph\]](https://arxiv.org/abs/0706.0847).

- [121] David J. Jeffery, Wesley Ketchum, David Branch, E. Baron, Abouazza Elmhamdi, and I. J. Danziger. “Goodness-of-Fit Tests DIFF1 and DIFF2 for Locally Normalized Supernova Spectra”. In: *ApJS* 171.2 (Aug. 2007), pp. 493–511. DOI: [10.1086/518423](https://doi.org/10.1086/518423). arXiv: [astro-ph/0607084 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0607084).
- [122] D. Jevremovic, A. Dotter, and E. Baron. “Models of Stellar Atmospheres for Evolutionary Modelling”. In: *Publications de l'Observatoire Astronomique de Beograd* 82 (Jan. 2007), p. 131.
- [123] S. Knop, P. H. Hauschildt, and E. Baron. “General relativistic radiative transfer”. In: *A&A* 463.1 (Feb. 2007), pp. 315–320. DOI: [10.1051/0004-6361:20065521](https://doi.org/10.1051/0004-6361:20065521). arXiv: [astro-ph/0611938 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0611938).
- [124] S. Knop, P. H. Hauschildt, E. Baron, and S. Dreizler. “Analyzing  $|ASTROBJ|_{SN 2003Z}|/ASTROBJ|$  with PHOENIX”. In: *A&A* 469.3 (July 2007), pp. 1077–1081. DOI: [10.1051/0004-6361:20066726](https://doi.org/10.1051/0004-6361:20066726). arXiv: [0902.1867 \[astro-ph.SR\]](https://arxiv.org/abs/0902.1867).
- [125] Jerod Parrent, David Branch, M. A. Troxel, D. Casebeer, David J. Jeffery, W. Ketchum, E. Baron, F. J. D. Serduke, and Alexei V. Filippenko. “Direct Analysis of Spectra of the Unusual Type Ib Supernova 2005bf”. In: *PASP* 119.852 (Feb. 2007), pp. 135–142. DOI: [10.1086/512494](https://doi.org/10.1086/512494). arXiv: [astro-ph/0701198 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0701198).
- [126] M. Parthasarathy, David Branch, David J. Jeffery, and E. Baron. “Progenitors of type Ia supernovae: Binary stars with white dwarf companions”. In: *New A Rev.* 51.5-6 (June 2007), pp. 524–538. DOI: [10.1016/j.newar.2007.03.001](https://doi.org/10.1016/j.newar.2007.03.001). arXiv: [astro-ph/0703415 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0703415).
- [127] R. C. Thomas, G. Aldering, P. Antilogus, C. Aragon, et al. “Nearby Supernova Factory Observations of SN 2006D: On Sporadic Carbon Signatures in Early Type Ia Supernova Spectra”. In: *ApJ* 654.1 (Jan. 2007), pp. L53–L56. DOI: [10.1086/510780](https://doi.org/10.1086/510780). arXiv: [astro-ph/0611356 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0611356).
- [128] E. Baron, Sebastien Bongard, David Branch, and Peter H. Hauschildt. “Spectral Modeling of SNe Ia Near Maximum Light: Probing the Characteristics of Hydrodynamical Models”. In: *ApJ* 645.1 (July 2006), pp. 480–487. DOI: [10.1086/504101](https://doi.org/10.1086/504101). arXiv: [astro-ph/0603101 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0603101).
- [129] Sebastien Bongard, E. Baron, G. Smadja, David Branch, and Peter H. Hauschildt. “Type Ia Supernova Spectral Line Ratios as Luminosity Indicators”. In: *ApJ* 647.1 (Aug. 2006), pp. 513–524. DOI: [10.1086/505322](https://doi.org/10.1086/505322). arXiv: [astro-ph/0512229 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0512229).
- [130] David Branch, Leeann Chau Dang, Nicholas Hall, Wesley Ketchum, Mercy Melakayil, Jerod Parrent, M. A. Troxel, D. Casebeer, David J. Jeffery, and E. Baron. “Comparative Direct Analysis of Type Ia Supernova Spectra. II. Maximum Light”. In: *PASP* 118.842 (Apr. 2006), pp. 560–571. DOI: [10.1086/502778](https://doi.org/10.1086/502778). arXiv: [astro-ph/0601048 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0601048).
- [131] David Branch, David J. Jeffery, Timothy R. Young, and E. Baron. “Hydrogen in Type Ic Supernovae?” In: *PASP* 118.844 (June 2006), pp. 791–796. DOI: [10.1086/505548](https://doi.org/10.1086/505548). arXiv: [astro-ph/0604047 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0604047).

- [132] Darrin A. Casebeer, Karen M. Leighly, and E. Baron. “FUSE Observation of the Narrow-Line Seyfert 1 Galaxy RE 1034+39: Dependence of Broad Emission Line Strengths on the Shape of the Photoionizing Spectrum”. In: *ApJ* 637.1 (Jan. 2006), pp. 157–182. DOI: [10.1086/498125](https://doi.org/10.1086/498125). arXiv: [astro-ph/0508503](https://arxiv.org/abs/astro-ph/0508503) [astro-ph].
- [133] A. Elmhamdi, I. J. Danziger, D. Branch, B. Leibundgut, E. Baron, and R. P. Kirshner. “Hydrogen and helium traces in type Ib-c supernovae”. In: *A&A* 450.1 (Apr. 2006), pp. 305–330. DOI: [10.1051/0004-6361:20054366](https://doi.org/10.1051/0004-6361:20054366). arXiv: [astro-ph/0512572](https://arxiv.org/abs/astro-ph/0512572) [astro-ph].
- [134] P. H. Hauschildt and E. Baron. “A 3D radiative transfer framework. I. Non-local operator splitting and continuum scattering problems”. In: *A&A* 451.1 (May 2006), pp. 273–284. DOI: [10.1051/0004-6361:20053846](https://doi.org/10.1051/0004-6361:20053846). arXiv: [astro-ph/0601183](https://arxiv.org/abs/astro-ph/0601183) [astro-ph].
- [135] M. Parthasarathy, David Branch, E. Baron, and David J. Jeffery. “On the progenitor of supernova 1987 A”. In: *Bulletin of the Astronomical Society of India* 34.4 (Dec. 2006), p. 385. DOI: [10.48550/arXiv.astro-ph/0611033](https://doi.org/10.48550/arXiv.astro-ph/0611033). arXiv: [astro-ph/0611033](https://arxiv.org/abs/astro-ph/0611033) [astro-ph].
- [136] Dean Richardson, David Branch, and E. Baron. “Absolute Magnitude Distributions and Light Curves of Stripped-Envelope Supernovae”. In: *AJ* 131.4 (Apr. 2006), pp. 2233–2244. DOI: [10.1086/500578](https://doi.org/10.1086/500578). arXiv: [astro-ph/0601136](https://arxiv.org/abs/astro-ph/0601136) [astro-ph].
- [137] David Branch, E. Baron, Nicholas Hall, Mercy Melakayil, and Jerod Parrent. “Comparative Direct Analysis of Type Ia Supernova Spectra. I. SN 1994D”. In: *PASP* 117.832 (June 2005), pp. 545–552. DOI: [10.1086/430135](https://doi.org/10.1086/430135). arXiv: [astro-ph/0503165](https://arxiv.org/abs/astro-ph/0503165) [astro-ph].
- [138] D. J. Christian, M. Mathioudakis, D. Jevremović, P. H. Hauschildt, and E. Baron. “ $^{6}\text{Li}$  in the Atmosphere of GJ 117”. In: *ApJ* 632.2 (Oct. 2005), pp. L127–L130. DOI: [10.1086/497688](https://doi.org/10.1086/497688). arXiv: [astro-ph/0509247](https://arxiv.org/abs/astro-ph/0509247) [astro-ph].
- [139] Claes Fransson, Peter M. Challis, Roger A. Chevalier, Alexei V. Filippenko, et al. “Hubble Space Telescope and Ground-based Observations of SN 1993J and SN 1998S: CNO Processing in the Progenitors”. In: *ApJ* 622.2 (Apr. 2005), pp. 991–1007. DOI: [10.1086/426495](https://doi.org/10.1086/426495). arXiv: [astro-ph/0409439](https://arxiv.org/abs/astro-ph/0409439) [astro-ph].
- [140] S. Mattila, P. Lundqvist, J. Sollerman, C. Kozma, E. Baron, C. Fransson, B. Leibundgut, and K. Nomoto. “Early and late time VLT spectroscopy of SN 2001el - progenitor constraints for a type Ia supernova”. In: *A&A* 443.2 (Nov. 2005), pp. 649–662. DOI: [10.1051/0004-6361:20052731](https://doi.org/10.1051/0004-6361:20052731). arXiv: [astro-ph/0501433](https://arxiv.org/abs/astro-ph/0501433) [astro-ph].
- [141] A. Pastorello, E. Baron, D. Branch, L. Zampieri, et al. “SN 1998A: explosion of a blue supergiant”. In: *MNRAS* 360.3 (July 2005), pp. 950–962. DOI: [10.1111/j.1365-2966.2005.09079.x](https://doi.org/10.1111/j.1365-2966.2005.09079.x). arXiv: [astro-ph/0504114](https://arxiv.org/abs/astro-ph/0504114) [astro-ph].
- [142] E. Baron and P. H. Hauschildt. “Co-moving frame radiative transfer in spherical media with arbitrary velocity fields”. In: *A&A* 427 (Dec. 2004), pp. 987–994. DOI: [10.1051/0004-6361:20040039](https://doi.org/10.1051/0004-6361:20040039). arXiv: [astro-ph/0408212](https://arxiv.org/abs/astro-ph/0408212) [astro-ph].

- [143] E. Baron, Peter E. Nugent, David Branch, and Peter H. Hauschildt. “Type IIP Supernovae as Cosmological Probes: A Spectral-fitting Expanding Atmosphere Model Distance to SN 1999em”. In: *ApJ* 616.2 (Dec. 2004), pp. L91–L94. DOI: [10.1086/426506](https://doi.org/10.1086/426506). arXiv: [astro-ph/0410153 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0410153).
- [144] David Branch, E. Baron, R. C. Thomas, D. Kasen, Weidong Li, and Alexei V. Filippenko. “Reading the Spectra of the Most Peculiar Type Ia Supernova 2002cx”. In: *PASP* 116.824 (Oct. 2004), pp. 903–908. DOI: [10.1086/425081](https://doi.org/10.1086/425081). arXiv: [astro-ph/0408130 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0408130).
- [145] David Branch, R. C. Thomas, E. Baron, Daniel Kasen, Kazuhito Hatano, K. Nomoto, Alexei V. Filippenko, Weidong Li, and Richard J. Rudy. “Direct Analysis of Spectra of the Peculiar Type Ia Supernova 2000cx”. In: *ApJ* 606.1 (May 2004), pp. 413–423. DOI: [10.1086/382950](https://doi.org/10.1086/382950). arXiv: [astro-ph/0401324 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0401324).
- [146] P. H. Hauschildt and E. Baron. “Improved discretization of the wavelength derivative term in CMF operator splitting numerical radiative transfer”. In: *A&A* 417 (Apr. 2004), pp. 317–324. DOI: [10.1051/0004-6361:20034473](https://doi.org/10.1051/0004-6361:20034473). arXiv: [astro-ph/0401164 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0401164).
- [147] A. Pastorello, L. Zampieri, M. Turatto, E. Cappellaro, et al. “Low-luminosity Type II supernovae: spectroscopic and photometric evolution”. In: *MNRAS* 347.1 (Jan. 2004), pp. 74–94. DOI: [10.1111/j.1365-2966.2004.07173.x](https://doi.org/10.1111/j.1365-2966.2004.07173.x). arXiv: [astro-ph/0309264 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0309264).
- [148] R. C. Thomas, David Branch, E. Baron, Ken’ichi Nomoto, Weidong Li, and Alexei V. Filippenko. “On the Geometry of the High-Velocity Ejecta of the Peculiar Type Ia Supernova 2000cx”. In: *ApJ* 601.2 (Feb. 2004), pp. 1019–1030. DOI: [10.1086/380632](https://doi.org/10.1086/380632). arXiv: [astro-ph/0302260 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0302260).
- [149] E. Baron. “On dynamic behaviour of medium-thickness plates with uniperiodic structure”. In: *Archive of Applied Mechanics* 73.7 (Dec. 2003), pp. 505–516. DOI: [10.1007/s00419-003-0304-7](https://doi.org/10.1007/s00419-003-0304-7).
- [150] E. Baron, Eric J. Lentz, and Peter H. Hauschildt. “Detectability of Mixed Unburnt C+O in Type Ia Supernova Spectra”. In: *ApJ* 588.1 (May 2003), pp. L29–L32. DOI: [10.1086/375526](https://doi.org/10.1086/375526). arXiv: [astro-ph/0303627 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0303627).
- [151] E. Baron, Peter E. Nugent, David Branch, Peter H. Hauschildt, M. Turatto, and E. Cappellaro. “Determination of Primordial Metallicity and Mixing in the Type II-P Supernova 1993W”. In: *ApJ* 586.2 (Apr. 2003), pp. 1199–1210. DOI: [10.1086/367888](https://doi.org/10.1086/367888). arXiv: [astro-ph/0212071 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0212071).
- [152] Eddie Baron. “Astronomy: An elementary puzzle”. In: *Nature* 424.6949 (Aug. 2003), pp. 628–629. DOI: [10.1038/424628a](https://doi.org/10.1038/424628a).
- [153] D. Branch, E. A. Baron, and D. J. Jeffery. “Optical Spectra of Supernovae”. In: *Supernovae and Gamma-Ray Bursters*. Ed. by K. Weiler. Vol. 598. 2003, pp. 47–75. DOI: [10.1007/3-540-45863-8\\_5](https://doi.org/10.1007/3-540-45863-8_5).

- [154] David Branch, Peter Garnavich, Thomas Matheson, E. Baron, R. C. Thomas, Kazuhito Hatano, Peter Challis, Saurabh Jha, and Robert P. Kirshner. “Optical Spectra of the Type Ia Supernova 1998aq”. In: *AJ* 126.3 (Sept. 2003), pp. 1489–1498. DOI: [10.1086/377016](https://doi.org/10.1086/377016). arXiv: [astro-ph/0305321 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0305321).
- [155] Daniel Kasen, Peter Nugent, Lifan Wang, D. A. Howell, J. Craig Wheeler, Peter Höflich, Dietrich Baade, E. Baron, and P. H. Hauschildt. “Analysis of the Flux and Polarization Spectra of the Type Ia Supernova SN 2001el: Exploring the Geometry of the High-Velocity Ejecta”. In: *ApJ* 593.2 (Aug. 2003), pp. 788–808. DOI: [10.1086/376601](https://doi.org/10.1086/376601). arXiv: [astro-ph/0301312 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0301312).
- [156] J. P. Aufdenberg, P. H. Hauschildt, E. Baron, T. E. Nordgren, A. W. Burnley, I. D. Howarth, K. D. Gordon, and J. A. Stansberry. “The Spectral Energy Distribution and Mass-Loss Rate of the A-Type Supergiant Deneb”. In: *ApJ* 570.1 (May 2002), pp. 344–368. DOI: [10.1086/339740](https://doi.org/10.1086/339740). arXiv: [astro-ph/0201218 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0201218).
- [157] Travis S. Barman, Peter H. Hauschildt, Andreas Schweitzer, Phillip C. Stancil, E. Baron, and France Allard. “Non-LTE Effects of Na I in the Atmosphere of HD 209458b”. In: *ApJ* 569.1 (Apr. 2002), pp. L51–L54. DOI: [10.1086/340579](https://doi.org/10.1086/340579). arXiv: [astro-ph/0203139 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0203139).
- [158] S. Benetti, D. Branch, M. Turatto, E. Cappellaro, E. Baron, L. Zampieri, M. Della Valle, and A. Pastorello. “The exceptionally bright Type Ib supernova 1991D”. In: *MNRAS* 336.1 (Oct. 2002), pp. 91–96. DOI: [10.1046/j.1365-8711.2002.05706.x](https://doi.org/10.1046/j.1365-8711.2002.05706.x). arXiv: [astro-ph/0205453 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0205453).
- [159] David Branch, S. Benetti, Daniel Kasen, E. Baron, et al. “Direct Analysis of Spectra of Type Ib Supernovae”. In: *ApJ* 566.2 (Feb. 2002), pp. 1005–1017. DOI: [10.1086/338127](https://doi.org/10.1086/338127). arXiv: [astro-ph/0106367 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0106367).
- [160] David Branch, Karen M. Leighly, R. C. Thomas, and E. Baron. “The Spectrum of the FeLoBAL Quasar FBQS 1214+2803: A Resonance-scattering Interpretation”. In: *ApJ* 578.1 (Oct. 2002), pp. L37–L40. DOI: [10.1086/344472](https://doi.org/10.1086/344472). arXiv: [astro-ph/0208513 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0208513).
- [161] Kazuhito Hatano, David Branch, Y. L. Qiu, E. Baron, F. -K. Thielemann, and Adam Fisher. “On the spectrum of the peculiar type Ia supernova 1997br and the nature of SN 1991T-like events”. In: *New A* 7.7 (Oct. 2002), pp. 441–448. DOI: [10.1016/S1384-1076\(02\)00169-0](https://doi.org/10.1016/S1384-1076(02)00169-0).
- [162] A. Hui-Bon-Hoa, F. LeBlanc, P. H. Hauschildt, and E. Baron. “Radiative accelerations in stellar atmospheres”. In: *A&A* 381 (Jan. 2002), pp. 197–208. DOI: [10.1051/0004-6361:20011494](https://doi.org/10.1051/0004-6361:20011494).
- [163] Daniel Kasen, David Branch, E. Baron, and David Jeffery. “A Complete Analytic Inversion of Supernova Lines in the Sobolev Approximation”. In: *ApJ* 565.1 (Jan. 2002), pp. 380–384. DOI: [10.1086/324136](https://doi.org/10.1086/324136). arXiv: [astro-ph/0108403 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0108403).
- [164] S. K. Leggett, Peter H. Hauschildt, F. Allard, T. R. Geballe, and E. Baron. “Atmospheric analysis of the M/L and M/T dwarf binary systems LHS 102 and Gliese 229”. In: *MNRAS* 332.1 (May 2002), pp. 78–90. DOI: [10.1046/j.1365-8711.2002.05273.x](https://doi.org/10.1046/j.1365-8711.2002.05273.x). arXiv: [astro-ph/0112335 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0112335).

- [165] Eric J. Lentz, E. Baron, Peter H. Hauschildt, and David Branch. “Detectability of Hydrogen Mixing in Type Ia Supernova Premaximum Spectra”. In: *ApJ* 580.1 (Nov. 2002), pp. 374–379. DOI: [10.1086/343073](https://doi.org/10.1086/343073). arXiv: [astro-ph/0207470 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0207470).
- [166] Robert C. Mitchell, E. Baron, David Branch, Peter H. Hauschildt, Peter E. Nugent, Peter Lundqvist, Sergei Blinnikov, and Chun S. J. Pun. “Detailed Spectroscopic Analysis of SN 1987A: The Distance to the Large Magellanic Cloud Using the Spectral-fitting Expanding Atmosphere Method”. In: *ApJ* 574.1 (July 2002), pp. 293–305. DOI: [10.1086/340928](https://doi.org/10.1086/340928). arXiv: [astro-ph/0204012 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0204012).
- [167] Chun S. J. Pun, Eli Michael, Svetozar A. Zhekov, Richard McCray, et al. “Modeling the Hubble Space Telescope Ultraviolet and Optical Spectrum of Spot 1 on the Circumstellar Ring of SN 1987A”. In: *ApJ* 572.2 (June 2002), pp. 906–931. DOI: [10.1086/340453](https://doi.org/10.1086/340453). arXiv: [astro-ph/0203346 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0203346).
- [168] Dean Richardson, David Branch, Darrin Casebeer, Jennifer Millard, R. C. Thomas, and E. Baron. “A Comparative Study of the Absolute Magnitude Distributions of Supernovae”. In: *AJ* 123.2 (Feb. 2002), pp. 745–752. DOI: [10.1086/338318](https://doi.org/10.1086/338318). arXiv: [astro-ph/0112051 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0112051).
- [169] R. C. Thomas, Daniel Kasen, David Branch, and E. Baron. “Spectral Consequences of Deviation from Spherical Composition Symmetry in Type Ia Supernovae”. In: *ApJ* 567.2 (Mar. 2002), pp. 1037–1042. DOI: [10.1086/338679](https://doi.org/10.1086/338679). arXiv: [astro-ph/0107464 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0107464).
- [170] Peter H. Hauschildt, David K. Lowenthal, and E. Baron. “Parallel Implementation of the PHOENIX Generalized Stellar Atmosphere Program. III. A Parallel Algorithm for Direct Opacity Sampling”. In: *ApJS* 134.2 (June 2001), pp. 323–329. DOI: [10.1086/320855](https://doi.org/10.1086/320855). arXiv: [astro-ph/0104258 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0104258).
- [171] Eric J. Lentz, E. Baron, David Branch, and Peter H. Hauschildt. “Non-LTE Synthetic Spectral Fits to the Type Ia Supernova 1994D in NGC 4526”. In: *ApJ* 557.1 (Aug. 2001), pp. 266–278. DOI: [10.1086/322239](https://doi.org/10.1086/322239). arXiv: [astro-ph/0104225 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0104225).
- [172] Eric J. Lentz, E. Baron, David Branch, and Peter H. Hauschildt. “SN 1984A and Delayed-Detonation Models of Type IA Supernovae”. In: *ApJ* 547.1 (Jan. 2001), pp. 402–405. DOI: [10.1086/318374](https://doi.org/10.1086/318374). arXiv: [astro-ph/0007302 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0007302).
- [173] Eric J. Lentz, E. Baron, Peter Lundqvist, David Branch, et al. “Analysis of Type IIn SN 1998S: Effects of Circumstellar Interaction on Observed Spectra”. In: *ApJ* 547.1 (Jan. 2001), pp. 406–411. DOI: [10.1086/318363](https://doi.org/10.1086/318363). arXiv: [astro-ph/0010615 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0010615).
- [174] Robert C. Mitchell, E. Baron, David Branch, Peter Lundqvist, Sergei Blinnikov, Peter H. Hauschildt, and Chun S. J. Pun. “ $^{56}\text{Ni}$  Mixing in the Outer Layers of SN 1987A”. In: *ApJ* 556.2 (Aug. 2001), pp. 979–986. DOI: [10.1086/321623](https://doi.org/10.1086/321623). arXiv: [astro-ph/0104148 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0104148).
- [175] Greg J. Schwarz, S. N. Shore, S. Starrfield, Peter H. Hauschildt, M. Della Valle, and E. Baron. “Multiwavelength analyses of the extraordinary nova LMC 1991\*”. In: *MNRAS* 320.1 (Jan. 2001), pp. 103–123. DOI: [10.1046/j.1365-8711.2001.03960.x](https://doi.org/10.1046/j.1365-8711.2001.03960.x).

- [176] C. Ian Short, Peter H. Hauschildt, S. Starrfield, and E. Baron. “Non-LTE Modeling of Nova Cygni 1992”. In: *ApJ* 547.2 (Feb. 2001), pp. 1057–1070. DOI: [10.1086/318413](https://doi.org/10.1086/318413). arXiv: [astro-ph/0009502 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0009502).
- [177] Travis S. Barman, Peter H. Hauschildt, C. Ian Short, and E. Baron. “A Grid of Non-LTE Model Atmospheres for White Dwarfs in Cataclysmic Variables”. In: *ApJ* 537.2 (July 2000), pp. 946–952. DOI: [10.1086/309078](https://doi.org/10.1086/309078).
- [178] E. Baron, David Branch, Peter H. Hauschildt, Alexei V. Filippenko, et al. “Preliminary Spectral Analysis of the Type II Supernova 1999EM”. In: *ApJ* 545.1 (Dec. 2000), pp. 444–448. DOI: [10.1086/317795](https://doi.org/10.1086/317795). arXiv: [astro-ph/0010614 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0010614).
- [179] Myra Blaylock, David Branch, Darrin Casebeer, Jennifer Millard, E. Baron, Dean Richardson, and Cristina Ancheta. “Mount Wilson and Palomar Photographic Supernova Spectra”. In: *PASP* 112.777 (Nov. 2000), pp. 1439–1445. DOI: [10.1086/317700](https://doi.org/10.1086/317700).
- [180] Darrin Casebeer, David Branch, Myra Blaylock, Jennifer Millard, E. Baron, Dean Richardson, and Cristina Ancheta. “Lick Observatory Photographic Supernova Spectra”. In: *PASP* 112.777 (Nov. 2000), pp. 1433–1438. DOI: [10.1086/317699](https://doi.org/10.1086/317699).
- [181] Kazuhito Hatano, David Branch, Eric J. Lentz, E. Baron, Alexei V. Filippenko, and Peter M. Garnavich. “On the Spectroscopic Diversity of Type IA Supernovae”. In: *ApJ* 543.1 (Nov. 2000), pp. L49–L52. DOI: [10.1086/318169](https://doi.org/10.1086/318169). arXiv: [astro-ph/0009219 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0009219).
- [182] Eric J. Lentz, E. Baron, David Branch, Peter H. Hauschildt, and Peter E. Nugent. “Metallicity Effects in Non-LTE Model Atmospheres of Type IA Supernovae”. In: *ApJ* 530.2 (Feb. 2000), pp. 966–976. DOI: [10.1086/308400](https://doi.org/10.1086/308400). arXiv: [astro-ph/9906016 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9906016).
- [183] Andreas Schweitzer, Peter H. Hauschildt, and E. Baron. “Non-LTE Treatment of Molecules in the Photospheres of Cool Stars”. In: *ApJ* 541.2 (Oct. 2000), pp. 1004–1015. DOI: [10.1086/309461](https://doi.org/10.1086/309461). arXiv: [astro-ph/0006049 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0006049).
- [184] J. P. Aufdenberg, P. H. Hauschildt, and E. Baron. “A non-local thermodynamic equilibrium spherical line-blanketed stellar atmosphere model of the early B giant beta CMa”. In: *MNRAS* 302.3 (Jan. 1999), pp. 599–611. DOI: [10.1046/j.1365-8711.1999.02140.x](https://doi.org/10.1046/j.1365-8711.1999.02140.x).
- [185] E. Baron, David Branch, Peter H. Hauschildt, Alexei V. Filippenko, and R. P. Kirshner. “Spectral Models of the Type IC Supernova SN 1994I in M51”. In: *ApJ* 527.2 (Dec. 1999), pp. 739–745. DOI: [10.1086/308107](https://doi.org/10.1086/308107). arXiv: [astro-ph/9907172 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9907172).
- [186] E. Baron, Rabindra N. Mohapatra, and Vigdor L. Teplitz. “Limits on Pauli principle violation by nucleons”. In: *Phys. Rev. D* 59.3, 036003 (Feb. 1999), p. 036003. DOI: [10.1103/PhysRevD.59.036003](https://doi.org/10.1103/PhysRevD.59.036003). arXiv: [hep-ph/9808397 \[hep-ph\]](https://arxiv.org/abs/hep-ph/9808397).
- [187] Adam Fisher, David Branch, Kazuhito Hatano, and E. Baron. “On the spectrum and nature of the peculiar Type IA supernova 1991T”. In: *MNRAS* 304.1 (Mar. 1999), pp. 67–74. DOI: [10.1046/j.1365-8711.1999.02299.x](https://doi.org/10.1046/j.1365-8711.1999.02299.x). arXiv: [astro-ph/9807032 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9807032).

- [188] Kazuhito Hatano, David Branch, Adam Fisher, E. Baron, and A. V. Filippenko. “On the High-Velocity Ejecta of the Type IA Supernova SN 1994D”. In: *ApJ* 525.2 (Nov. 1999), pp. 881–885. DOI: [10.1086/307947](https://doi.org/10.1086/307947). arXiv: [astro-ph/9903333 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9903333).
- [189] Kazuhito Hatano, David Branch, Adam Fisher, Jennifer Millard, and E. Baron. “Ion Signatures in Supernova Spectra”. In: *ApJS* 121.1 (Mar. 1999), pp. 233–246. DOI: [10.1086/313190](https://doi.org/10.1086/313190). arXiv: [astro-ph/9809236 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9809236).
- [190] P. H. Hauschildt and E. Baron. “Numerical solution of the expanding stellar atmosphere problem.” In: *Journal of Computational and Applied Mathematics* 109.1 (Sept. 1999), pp. 41–63. DOI: [10.48550/arXiv.astro-ph/9808182](https://doi.org/10.48550/arXiv.astro-ph/9808182). arXiv: [astro-ph/9808182 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9808182).
- [191] Peter H. Hauschildt, France Allard, and E. Baron. “The NextGen Model Atmosphere Grid for  $3000 \leq T_{eff} \leq 10,000$  K”. In: *ApJ* 512.1 (Feb. 1999), pp. 377–385. DOI: [10.1086/306745](https://doi.org/10.1086/306745). arXiv: [astro-ph/9807286 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9807286).
- [192] Peter H. Hauschildt, France Allard, Jason Ferguson, E. Baron, and David R. Alexander. “The NEXTGEN Model Atmosphere Grid. II. Spherically Symmetric Model Atmospheres for Giant Stars with Effective Temperatures between 3000 and 6800 K”. In: *ApJ* 525.2 (Nov. 1999), pp. 871–880. DOI: [10.1086/307954](https://doi.org/10.1086/307954). arXiv: [astro-ph/9907194 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9907194).
- [193] Eric J. Lentz, David Branch, and E. Baron. “Monte Carlo Simulation of the Galactic  $^{26}\text{Al}$  Gamma-Ray Map”. In: *ApJ* 512.2 (Feb. 1999), pp. 678–682. DOI: [10.1086/306790](https://doi.org/10.1086/306790). arXiv: [astro-ph/9804115 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9804115).
- [194] Jennifer Millard, David Branch, E. Baron, Kazuhito Hatano, et al. “Direct Analysis of Spectra of the Type IC Supernova SN 1994I”. In: *ApJ* 527.2 (Dec. 1999), pp. 746–756. DOI: [10.1086/308108](https://doi.org/10.1086/308108). arXiv: [astro-ph/9906496 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9906496).
- [195] S. L. Pistinner, P. H. Hauschildt, D. Eichler, and E. Baron. “On the primordial helium abundance and spectroscopic uncertainties.” In: *Phys. Rep.* 311.3 (Apr. 1999), pp. 151–161. DOI: [10.1016/S0370-1573\(98\)00096-9](https://doi.org/10.1016/S0370-1573(98)00096-9).
- [196] S. L. Pistinner, P. H. Hauschildt, D. Eichler, and E. A. Baron. “Spectroscopy of low-metallicity giant HII regions: a grid of low-metallicity stellar atmospheres”. In: *MNRAS* 302.4 (Feb. 1999), pp. 684–692. DOI: [10.1046/j.1365-8711.1999.02152.x](https://doi.org/10.1046/j.1365-8711.1999.02152.x). arXiv: [astro-ph/9811021 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9811021).
- [197] C. Ian Short, Peter H. Hauschildt, and E. Baron. “Massive Multispecies, Multilevel Non-LTE Model Atmospheres for Novae in Outburst”. In: *ApJ* 525.1 (Nov. 1999), pp. 375–385. DOI: [10.1086/307895](https://doi.org/10.1086/307895). arXiv: [astro-ph/9906238 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9906238).
- [198] J. P. Aufdenberg, P. H. Hauschildt, S. N. Shore, and E. Baron. “A Spherical Non-LTE Line-blanketed Stellar Atmosphere Model of the Early B Giant epsilon Canis Majoris”. In: *ApJ* 498.2 (May 1998), pp. 837–850. DOI: [10.1086/305565](https://doi.org/10.1086/305565). arXiv: [astro-ph/9802031 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9802031).
- [199] E. Baron and Peter H. Hauschildt. “Parallel Implementation of the PHOENIX Generalized Stellar Atmosphere Program. II. Wavelength Parallelization”. In: *ApJ* 495.1 (Mar. 1998), pp. 370–376. DOI: [10.1086/305287](https://doi.org/10.1086/305287). arXiv: [astro-ph/9709238 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9709238).

- [200] Eddie Baron. “How big do stellar explosions get?” In: *Nature* 395.6703 (Oct. 1998), pp. 635–636. DOI: [10.1038/27067](https://doi.org/10.1038/27067).
- [201] Greg J. Schwarz, Peter H. Hauschildt, S. Starrfield, P. A. Whitelock, E. Baron, and G. Sonneborn. “A multiwavelength study of the early evolution of the classical nova LMC 1988 I”. In: *MNRAS* 300.3 (Nov. 1998), pp. 931–944. DOI: [10.1046/j.1365-8711.1998.01964.x](https://doi.org/10.1046/j.1365-8711.1998.01964.x).
- [202] David Branch, E. Baron, Peter Nugent, and Peter H. Hauschildt. “The Hubble constant, supernova light curves and spectra, and radiation transport”. In: *Physics of Plasmas* 4.5 (May 1997), pp. 2016–2022. DOI: [10.1063/1.872574](https://doi.org/10.1063/1.872574).
- [203] J. F. Buell, R. B. C. Henry, E. Baron, and K. B. Kwitter. “On the Origin of Planetary Nebula K648 in Globular Cluster M15”. In: *ApJ* 483.2 (July 1997), pp. 837–842. DOI: [10.1086/304273](https://doi.org/10.1086/304273). arXiv: [astro-ph/9707123 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9707123).
- [204] Adam Fisher, David Branch, Peter Nugent, and E. Baron. “Evidence for a High-velocity Carbon-rich Layer in the Type IA SN 1990N”. In: *ApJ* 481.2 (June 1997), pp. L89–L92. DOI: [10.1086/310660](https://doi.org/10.1086/310660).
- [205] Peter H. Hauschildt, France Allard, David R. Alexander, and E. Baron. “Non-Local Thermodynamic Equilibrium Effects of Ti I in M Dwarfs and Giants”. In: *ApJ* 488.1 (Oct. 1997), pp. 428–442. DOI: [10.1086/304674](https://doi.org/10.1086/304674).
- [206] Peter H. Hauschildt, E. Baron, and France Allard. “Parallel Implementation of the PHOENIX Generalized Stellar Atmosphere Program”. In: *ApJ* 483.1 (July 1997), pp. 390–398. DOI: [10.1086/304233](https://doi.org/10.1086/304233). arXiv: [astro-ph/9607087 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9607087).
- [207] Peter H. Hauschildt, Steven N. Shore, Greg J. Schwarz, E. Baron, S. Starrfield, and France Allard. “Detailed Non-LTE Model Atmospheres for Novae during Outburst. I. New Theoretical Results”. In: *ApJ* 490.2 (Dec. 1997), pp. 803–818. DOI: [10.1086/304904](https://doi.org/10.1086/304904). arXiv: [astro-ph/9707104 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9707104).
- [208] Peter Nugent, E. Baron, David Branch, Adam Fisher, and Peter H. Hauschildt. “Synthetic Spectra of Hydrodynamic Models of Type Ia Supernovae”. In: *ApJ* 485.2 (Aug. 1997), pp. 812–819. DOI: [10.1086/304459](https://doi.org/10.1086/304459). arXiv: [astro-ph/9612044 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9612044).
- [209] Greg J. Schwarz, Peter H. Hauschildt, S. Starrfield, E. Baron, France Allard, Steven N. Shore, and G. Sonneborn. “Non-LTE model atmosphere analysis of the early ultraviolet spectra of Nova OS Andromedae 1986”. In: *MNRAS* 284.3 (Jan. 1997), pp. 669–684. DOI: [10.1093/mnras/284.3.669](https://doi.org/10.1093/mnras/284.3.669). arXiv: [astro-ph/9608199 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9608199).
- [210] E. Baron, P. H. Hauschildt, D. Branch, R. P. Kirshner, and A. V. Filippenko. “Preliminary spectral analysis of SN 1994I”. In: *MNRAS* 279.3 (Apr. 1996), pp. 799–803. DOI: [10.1093/mnras/279.3.799](https://doi.org/10.1093/mnras/279.3.799). arXiv: [astro-ph/9510070 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9510070).
- [211] E. Baron, P. H. Hauschildt, and A. Mezzacappa. “Radiative transfer in the comoving frame”. In: *MNRAS* 278.3 (Feb. 1996), pp. 763–772. DOI: [10.1093/mnras/278.3.763](https://doi.org/10.1093/mnras/278.3.763).
- [212] E. Baron, P. H. Hauschildt, P. Nugent, and D. Branch. “Non-local thermodynamic equilibrium effects in modelling of supernovae near maximum light.” In: *MNRAS* 283.1 (Nov. 1996), pp. 297–315. DOI: [10.1093/mnras/283.1.297](https://doi.org/10.1093/mnras/283.1.297).

- [213] Eddie Baron and David Hough. “Kenneth Atkins”. In: *Physics Today* 49.10 (Jan. 1996), p. 93. DOI: [10.1063/1.2807821](https://doi.org/10.1063/1.2807821).
- [214] David Branch, Adam Fisher, E. Baron, and Peter Nugent. “On van den Bergh’s Method for Measuring the Hubble Constant from Type IA Supernovae”. In: *ApJ* 470 (Oct. 1996), p. L7. DOI: [10.1086/310293](https://doi.org/10.1086/310293).
- [215] David Branch, W. Romanishin, and E. Baron. “Statistical Connections between the Properties of Type IA Supernovae and the B-V Colors of Their Parent Galaxies, and the Value of H 0”. In: *ApJ* 465 (July 1996), p. 73. DOI: [10.1086/177402](https://doi.org/10.1086/177402). arXiv: [astro-ph/9510071 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9510071).
- [216] David Branch, W. Romanishin, and E. Baron. *Statistical Connections between the Properties of Type IA Supernovae and the B-V Colors of Their Parent Galaxies, and the Value of H 0: Erratum*. Astrophysical Journal v.467, p.473. Aug. 1996. DOI: [10.1086/177621](https://doi.org/10.1086/177621).
- [217] Peter H. Hauschildt, E. Baron, Sumner Starrfield, and France Allard. “The Effects of Fe II Non-LTE on Nova Atmospheres and Spectra”. In: *ApJ* 462 (May 1996), p. 386. DOI: [10.1086/177160](https://doi.org/10.1086/177160). arXiv: [astro-ph/9601149 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9601149).
- [218] E. Baron, P. H. Hauschildt, D. Branch, S. Austin, P. Garnavich, Hong Bae Ann, R. M. Wagner, A. V. Filippenko, T. Matheson, and James Liebert. “Non-LTE Spectral Analysis and Model Constraints on SN 1993J”. In: *ApJ* 441 (Mar. 1995), p. 170. DOI: [10.1086/175347](https://doi.org/10.1086/175347).
- [219] E. Baron, P. H. Hauschildt, and T. R. Young. “Supernova 1993J: one year later.” In: *Phys. Rep.* 256.1 (May 1995), pp. 23–35. DOI: [10.1016/0370-1573\(94\)00099-0](https://doi.org/10.1016/0370-1573(94)00099-0).
- [220] David Branch, Mario Livio, L. R. Yungelson, Francesca R. Boffi, and E. Baron. “In Search of the Progenitors of Type IA Supernovae”. In: *PASP* 107 (Nov. 1995), p. 1019. DOI: [10.1086/133657](https://doi.org/10.1086/133657).
- [221] P. H. Hauschildt and E. Baron. “Non-LTE treatment of Fe II in astrophysical plasmas.” In: *J. Quant. Spec. Radiat. Transf.* 54.6 (Dec. 1995), pp. 987–999. DOI: [10.1016/0022-4073\(95\)00118-5](https://doi.org/10.1016/0022-4073(95)00118-5). arXiv: [astro-ph/9601148 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9601148).
- [222] Peter H. Hauschildt, Sumner Starrfield, Steven N. Shore, France Allard, and E. Baron. “The Physics of Early Nova Spectra”. In: *ApJ* 447 (July 1995), p. 829. DOI: [10.1086/175921](https://doi.org/10.1086/175921).
- [223] Peter Nugent, E. Baron, Peter H. Hauschildt, and David Branch. “Spectrum Synthesis of the Type IA Supernovae SN 1992A and SN 1981B”. In: *ApJ* 441 (Mar. 1995), p. L33. DOI: [10.1086/187782](https://doi.org/10.1086/187782).
- [224] Peter Nugent, David Branch, E. Baron, Adam Fisher, Thomas Vaughan, and Peter H. Hauschildt. “Erratum:“Low Hubble Constant from the Physics of Type Ia Supernovae” [Phys. Rev. Lett. 75, 394 (1995)]”. In: *Phys. Rev. Lett.* 75.9 (Aug. 1995), p. 1874. DOI: [10.1103/PhysRevLett.75.1874](https://doi.org/10.1103/PhysRevLett.75.1874).
- [225] Peter Nugent, David Branch, E. Baron, Adam Fisher, Thomas Vaughan, and Peter H. Hauschildt. “Low Hubble Constant from the Physics of Type Ia Supernovae”. In: *Phys. Rev. Lett.* 75.3 (July 1995), pp. 394–397. DOI: [10.1103/PhysRevLett.75.394](https://doi.org/10.1103/PhysRevLett.75.394).

- [226] Peter Nugent, Mark Phillips, E. Baron, David Branch, and Peter Hauschildt. “Evidence for a Spectroscopic Sequence among Type 1a Supernovae”. In: *ApJ* 455 (Dec. 1995), p. L147. doi: [10.1086/309846](https://doi.org/10.1086/309846). arXiv: [astro-ph/9510004 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9510004).
- [227] Timothy R. Young, E. Baron, and David Branch. “Light Curve Studies of SN 1993J and SN 1994I”. In: *ApJ* 449 (Aug. 1995), p. L51. doi: [10.1086/309618](https://doi.org/10.1086/309618).
- [228] E. Baron, P. H. Hauschildt, and D. Branch. “Modeling and Interpretation of the Optical and HST UV Spectrum of SN 1993J”. In: *ApJ* 426 (May 1994), p. 334. doi: [10.1086/174068](https://doi.org/10.1086/174068).
- [229] P. H. Hauschildt, H. Störzer, and E. Baron. “Convergence properties of the accelerated  $\Lambda$ -iteration method for the solution of radiative transfer problems.” In: *J. Quant. Spec. Radiat. Transf.* 51.6 (June 1994), pp. 875–891. doi: [10.1016/0022-4073\(94\)90018-3](https://doi.org/10.1016/0022-4073(94)90018-3).
- [230] E. Baron, P. H. Hauschildt, D. Branch, R. M. Wagner, S. J. Austin, A. V. Filippenko, and T. Matheson. “Interpretation of the Early Spectra of SN 1993J in M81”. In: *ApJ* 416 (Oct. 1993), p. L21. doi: [10.1086/187061](https://doi.org/10.1086/187061).
- [231] E. Baron, Timothy R. Young, and David Branch. “On the Stellar Progenitor of the Type Ib Supernova 1984L”. In: *ApJ* 409 (May 1993), p. 417. doi: [10.1086/172674](https://doi.org/10.1086/172674).
- [232] E. Baron. “Progenitor masses of type Ib/c supernovae.” In: *MNRAS* 255 (Mar. 1992), pp. 267–268. doi: [10.1093/mnras/255.2.267](https://doi.org/10.1093/mnras/255.2.267).
- [233] J. Cooperstein and E. Baron. “Flux-limited Diffusion in Hydrodynamics”. In: *ApJ* 398 (Oct. 1992), p. 531. doi: [10.1086/171878](https://doi.org/10.1086/171878).
- [234] S. E. Woosley and E. Baron. “The Collapse of White Dwarfs to Neutron Stars”. In: *ApJ* 391 (May 1992), p. 228. doi: [10.1086/171338](https://doi.org/10.1086/171338).
- [235] M. B. Aufderheide, E. Baron, and F. -K. Thielemann. “Shock Waves and Nucleosynthesis in Type II Supernovae”. In: *ApJ* 370 (Apr. 1991), p. 630. doi: [10.1086/169849](https://doi.org/10.1086/169849).
- [236] G. Auger, M. Bajard, D. Bibet, E. Baron, et al. “Mass measurements with the GANIL cyclotrons”. In: *Journal of Physics G Nuclear Physics* 17 (Dec. 1991), S463–S468. doi: [10.1088/0954-3899/17/S/047](https://doi.org/10.1088/0954-3899/17/S/047).
- [237] Dany Page and E. Baron. *Strangeness Condensation, Nucleon Superfluidity, and Cooling of Neutron Stars: Erratum*. Astrophysical Journal Letters v.382, p.L111. Dec. 1991. doi: [10.1086/186225](https://doi.org/10.1086/186225).
- [238] E. Baron and J. Cooperstein. “The Effect of Iron Core Structure on Supernovae”. In: *ApJ* 353 (Apr. 1990), p. 597. doi: [10.1086/168649](https://doi.org/10.1086/168649).
- [239] Dany Page and E. Baron. “Strangeness, Condensation, Nucleon Superfluidity, and Cooling of Neutron Stars”. In: *ApJ* 354 (May 1990), p. L17. doi: [10.1086/185712](https://doi.org/10.1086/185712).
- [240] M. Prakash, E. Baron, and M. Prakash. “Erratum: Rotation of stars containing strange quark matter [Phys. Lett. B 243 (1990) 175]”. In: *Physics Letters B* 247.4 (Sept. 1990), pp. 632–632. doi: [10.1016/0370-2693\(90\)91913-V](https://doi.org/10.1016/0370-2693(90)91913-V).

- [241] Manju Prakash, E. Baron, and Madappa Prakash. “Rotation of stars containing strange quark matter”. In: *Physics Letters B* 243.3 (June 1990), pp. 175–180. DOI: [10.1016/0370-2693\(90\)90835-T](https://doi.org/10.1016/0370-2693(90)90835-T).
- [242] E. Baron, R. F. Carswell, C. J. Hogan, and R. J. Weymann. “Pressure-confined Lyman-Alpha Clouds”. In: *ApJ* 337 (Feb. 1989), p. 609. DOI: [10.1086/167131](https://doi.org/10.1086/167131).
- [243] E. Baron, E. S. Myra, J. Cooperstein, and L. J. van den Horn. “General Relativistic Neutrino Transport in Stellar Collapse”. In: *ApJ* 339 (Apr. 1989), p. 978. DOI: [10.1086/167352](https://doi.org/10.1086/167352).
- [244] E. Baron. “Collapse calculations in stars of mass less than 15 M<sub>sun</sub>;” In: *Phys. Rep.* 163.1 (Jan. 1988), pp. 37–46. DOI: [10.1016/0370-1573\(88\)90033-6](https://doi.org/10.1016/0370-1573(88)90033-6).
- [245] J. Cooperstein, E. A. Baron, D. Gerdes, and S. H. Kahana. “Comment on “Neutron-star masses as a constraint on the nuclear compression modulus””. In: *Phys. Rev. Lett.* 60.1 (Jan. 1988), p. 68. DOI: [10.1103/PhysRevLett.60.68](https://doi.org/10.1103/PhysRevLett.60.68).
- [246] T. L. Ainsworth, E. Baron, G. E. Brown, J. Cooperstein, and M. Prakash. “Equation of state of dense nuclear matter”. In: *Nucl. Phys. A* 464.4 (Mar. 1987), pp. 740–768. DOI: [10.1016/0375-9474\(87\)90373-3](https://doi.org/10.1016/0375-9474(87)90373-3).
- [247] E. Baron, H. A. Bethe, G. E. Brown, J. Cooperstein, and S. Kahana. “Type II supernovae from prompt explosions”. In: *Phys. Rev. Lett.* 59.6 (Aug. 1987), pp. 736–739. DOI: [10.1103/PhysRevLett.59.736](https://doi.org/10.1103/PhysRevLett.59.736).
- [248] E. Baron, J. Cooperstein, and S. Kahana. “Collapse of 9 M<sub>sun</sub> Stars”. In: *ApJ* 320 (Sept. 1987), p. 300. DOI: [10.1086/165541](https://doi.org/10.1086/165541).
- [249] E. Baron, J. Cooperstein, S. Kahana, and K. Nomoto. “Collapsing White Dwarfs”. In: *ApJ* 320 (Sept. 1987), p. 304. DOI: [10.1086/165542](https://doi.org/10.1086/165542).
- [250] E. Baron and Simon D. M. White. “The Appearance of Primeval Galaxies”. In: *ApJ* 322 (Nov. 1987), p. 585. DOI: [10.1086/165754](https://doi.org/10.1086/165754).
- [251] J. Cooperstein, L. J. van den Horn, and E. Baron. “Neutrino Pair Energy Deposition in Supernovae”. In: *ApJ* 321 (Oct. 1987), p. L129. DOI: [10.1086/185019](https://doi.org/10.1086/185019).
- [252] J. Cooperstein, L. J. van den Horn, and E. A. Baron. *Neutrino Flows in Collapsing Stars: A Two-Fluid Model: Erratum*. Astrophysical Journal v.315, p.729. Apr. 1987. DOI: [10.1086/165174](https://doi.org/10.1086/165174).
- [253] M. de Billy, G. Quentin, and E. Baron. “Attenuation measurements of an ultrasonic Rayleigh wave propagating along rough surfaces”. In: *Journal of Applied Physics* 61.6 (Mar. 1987), pp. 2140–2145. DOI: [10.1063/1.337972](https://doi.org/10.1063/1.337972).
- [254] S. H. Kahana, J. Cooperstein, and E. Baron. “Neutrinos from supernova 1987A”. In: *Physics Letters B* 196.3 (Oct. 1987), pp. 259–266. DOI: [10.1016/0370-2693\(87\)90727-1](https://doi.org/10.1016/0370-2693(87)90727-1).
- [255] J. Cooperstein, L. J. van den Horn, and E. A. Baron. “Neutrino Flows in Collapsing Stars: A Two-Fluid Model”. In: *ApJ* 309 (Oct. 1986), p. 653. DOI: [10.1086/164633](https://doi.org/10.1086/164633).

- [256] E. Baron, J. Cooperstein, and S. Kahana. “Supernovae and the nuclear equation of state at high densities”. In: *Nucl. Phys. A* 440.4 (July 1985), pp. 744–754. DOI: [10.1016/0375-9474\(85\)90405-1](https://doi.org/10.1016/0375-9474(85)90405-1).
- [257] E. Baron, J. Cooperstein, and S. Kahana. “Type II supernovae in  $12M_{\text{cirdot}}$  and  $15M_{\text{cirdot}}$  stars: The equation of state and general relativity”. In: *Phys. Rev. Lett.* 55.1 (July 1985), pp. 126–129. DOI: [10.1103/PhysRevLett.55.126](https://doi.org/10.1103/PhysRevLett.55.126).
- [258] Edward Arthur Baron. “The equation of state and general relativity in supernovae”. PhD thesis. SUNY Stony Brook, New York, Jan. 1985.

## Non-Refereed Articles

- [1] Pete Roming, Chris Fryer, Eleonora Troja, Edward Baron, et al. “Observing neutron star mergers and the shock breakout of supernovae with SIBEX”. In: *APS April Meeting Abstracts*. Vol. 2022. APS Meeting Abstracts. Apr. 2022, L14.007, p. L14.007.
- [2] Zachary Yarbrough, Eddie Baron, and James DerKacy. “Analysis and Characterization of SNe 2019ein”. In: *American Astronomical Society Meeting Abstracts*. Vol. 54. American Astronomical Society Meeting Abstracts. June 2022, 104.10, p. 104.10.
- [3] J. DerKacy, E. Baron, D. Branch, P. Hoeflich, P. Hauschildt, P. Brown, and L. Wang. “Probing Spectral Formation of Type Ia Supernovae using PHOENIX”. In: *American Astronomical Society Meeting Abstracts*. Vol. 53. American Astronomical Society Meeting Abstracts. Jan. 2021, 309.06D, p. 309.06D.
- [4] J. M. DerKacy, E. Baron, D. Branch, P. Hoeflich, and P. Hauschildt. “Ultraviolet Line Identifications in Near Max Light Spectra of Type Ia Supernova 2011fe”. In: *American Astronomical Society Meeting Abstracts #235*. Vol. 235. American Astronomical Society Meeting Abstracts. Jan. 2020, 276.27, p. 276.27.
- [5] Frank Timmes, Chris Fryer, Frank Timmes, Aimee L. Hungerford, et al. “Catching Element Formation In The Act ; The Case for a New MeV Gamma-Ray Mission: Radionuclide Astronomy in the 2020s”. In: *BAAS* 51.3, 2 (May 2019), p. 2. doi: [10.48550/arXiv.1902.02915](https://doi.org/10.48550/arXiv.1902.02915). arXiv: [1902.02915 \[astro-ph.HE\]](https://arxiv.org/abs/1902.02915).
- [6] Lifan Wang, J. Mould, D. Baade, E. Baron, et al. “JWST: Probing the Epoch of Reionization with a Wide Field Time-Domain Survey”. In: *BAAS* 51.3, 399 (May 2019), p. 399. doi: [10.48550/arXiv.1903.06027](https://doi.org/10.48550/arXiv.1903.06027). arXiv: [1903.06027 \[astro-ph.IM\]](https://arxiv.org/abs/1903.06027).
- [7] Bin Chen, Ronald Kantowski, Xinyu Dai, Eddie Baron, and Prasad Maddumage. *KERTAP: Strong lensing effects of Kerr black holes*. Astrophysics Source Code Library, record ascl:1708.021. Aug. 2017. ascl: [1708.021](https://ascl.net/1708.021).
- [8] Jeremy A. Lusk and Edward A. Baron. “Bolometric Lightcurves of Peculiar Type II-P Supernovae”. In: *American Astronomical Society Meeting Abstracts #229*. Vol. 229. American Astronomical Society Meeting Abstracts. Jan. 2017, 341.16, p. 341.16.
- [9] Patrick Vallely and Edward A. Baron. “Modeling Kilonova Spectra Using PHOENIX”. In: *American Astronomical Society Meeting Abstracts #230*. Vol. 230. American Astronomical Society Meeting Abstracts. June 2017, 318.08, p. 318.08.
- [10] Lifan Wang, D. Baade, E. Baron, S. Bernard, et al. “A First Transients Survey with JWST: the FLARE project”. In: *arXiv e-prints*, arXiv:1710.07005 (Oct. 2017), arXiv:1710.07005. doi: [10.48550/arXiv.1710.07005](https://doi.org/10.48550/arXiv.1710.07005). arXiv: [1710.07005 \[astro-ph.IM\]](https://arxiv.org/abs/1710.07005).
- [11] Malia Jenks and Edward A. Baron. “Effects of Metallicity on W7 model spectrum”. In: *American Astronomical Society Meeting Abstracts #227*. Vol. 227. American Astronomical Society Meeting Abstracts. Jan. 2016, 237.14, p. 237.14.
- [12] Edward Baron. “Bethe, Hans Albrecht”. In: *Biographical Encyclopedia of Astronomers*. 2014, pp. 209–211. doi: [10.1007/978-1-4419-9917-7\\_145](https://doi.org/10.1007/978-1-4419-9917-7_145).

- [13] Edward Baron. “Davis, Raymond, Jr.” In: *Biographical Encyclopedia of Astronomers*. 2014, pp. 524–525. doi: [10.1007/978-1-4419-9917-7\\_339](https://doi.org/10.1007/978-1-4419-9917-7_339).
- [14] Edward A. Baron. “Obituary: Tibor J. Herczeg (1926-2014)”. In: *BAAS* 46, 011 (Dec. 2014), p. 011.
- [15] Brian Friesen, E. A. Baron, J. T. Parrent, R. Thomas, and D. Branch. “Permitted spectral line features at late times in SN 2011fe?” In: *American Astronomical Society Meeting Abstracts #223*. Vol. 223. American Astronomical Society Meeting Abstracts. Jan. 2014, 354.24, p. 354.24.
- [16] Bin Chen, X. Dai, E. A. Baron, and R. Kantowski. “Inclination-Dependent Active Galactic Nucleus Flux Profiles From Strong Lensing of The Kerr Spacetime”. In: *AAS/High Energy Astrophysics Division #13*. Vol. 13. AAS/High Energy Astrophysics Division. Apr. 2013, 108.08, p. 108.08.
- [17] Karen Leighly, D. M. Terndrup, M. Dietrich, A. B. Lucy, S. Gallagher, and E. A. Baron. “Reddening and Absorption in Mrk 231”. In: *American Astronomical Society Meeting Abstracts*. Vol. 222. American Astronomical Society Meeting Abstracts. June 2013, 215.01, p. 215.01.
- [18] B. Sadler, Peter Hoeflich, E. Baron, K. Krisciunas, G. Folatelli, M. Hamuy, M. Khokhlov, M. Phillips, N. Suntzeff, and L. Wang. “Constraining the Properties of SNe Ia Progenitors from Light Curves”. In: *Binary Paths to Type Ia Supernovae Explosions*. Ed. by Rosanne Di Stefano, Marina Orio, and Maxwell Moe. Vol. 281. Jan. 2013, pp. 309–313. doi: [10.1017/S1743921312015256](https://doi.org/10.1017/S1743921312015256).
- [19] A. Khokhlov, I. Domínguez, C. Bacon, B. Clifford, E. Baron, P. Hoeflich, K. Krisciunas, N. Suntzeff, and L. Wang. “Three-dimensional Simulations of Thermonuclear Detonation with  $\alpha$ -Network: Numerical Method and Preliminary Results”. In: *Advances in Computational Astrophysics: Methods, Tools, and Outcome*. Ed. by R. Capuzzo-Dolcetta, M. Limongi, and A. Tornambè. Vol. 453. Astronomical Society of the Pacific Conference Series. July 2012, p. 107.
- [20] Soma De, E. Baron, F. Timmes, and P. Hauschildt. “Radiative Transfer Calculation Of Light Curves And Spectra For Type Ia SNe Models”. In: *American Astronomical Society Meeting Abstracts #217*. Vol. 217. American Astronomical Society Meeting Abstracts. Jan. 2011, 434.24, p. 434.24.
- [21] Brandon Doull and E. Baron. “Comparative Analysis of Peculiar Type Ia 1991bg-like Supernovae Spectra”. In: *American Astronomical Society Meeting Abstracts #217*. Vol. 217. American Astronomical Society Meeting Abstracts. Jan. 2011, 337.03, p. 337.03.
- [22] Ch. Helling, E. Pedretti, S. Berdyugina, A. A. Vidotto, B. Beeck, E. Baron, A. P. Showman, E. Agol, and D. Homeier. “Aspects of Multi-Dimensional Modelling of Sub-stellar Atmospheres”. In: *16th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun*. Ed. by Christopher Johns-Krull, Matthew K. Browning, and Andrew A. West. Vol. 448. Astronomical Society of the Pacific Conference Series. Dec. 2011, p. 403. doi: [10.48550/arXiv.1012.3013](https://doi.org/10.48550/arXiv.1012.3013). arXiv: [1012.3013 \[astro-ph.SR\]](https://arxiv.org/abs/1012.3013).

- [23] Mary C. Hogan, D. Branch, and E. Baron. “SYNOW Line Analysis of Type Ib/IIB Supernovae”. In: *American Astronomical Society Meeting Abstracts #217*. Vol. 217. American Astronomical Society Meeting Abstracts. Jan. 2011, 337.17, p. 337.17.
- [24] Kevin Krisciunas, E. Baron, P. Hoeflich, A. M. Khokhlov, I. Dominguez, L. Wang, N. B. Suntzeff, M. Hamuy, and M. M. Phillips. “Modeling the Very Slowly Declining Type Ia Supernova 2001ay”. In: *American Astronomical Society Meeting Abstracts #218*. Vol. 218. American Astronomical Society Meeting Abstracts. May 2011, 127.06, p. 127.06.
- [25] E. Baron, Bin Chen, and P. H. Hauschildt. *PHOENIX: A General-purpose State-of-the-art Stellar and Planetary Atmosphere Code*. Astrophysics Source Code Library, record ascl:1010.056. Oct. 2010. ascl: [1010.056](#).
- [26] Eddie Baron, David Branch, Peter Hauschildt, Wesley Ketchum, and Spencer James. “Hydrogen in Type Ib Supernovae”. In: *Progenitors and Environments of Stellar Explosions*. June 2010, 7, p. 7.
- [27] Soma De, E. Baron, and P. Hauschildt. “Time Dependent Radiative Transfer in Cosmic Recombination Epoch”. In: *American Astronomical Society Meeting Abstracts #215*. Vol. 215. American Astronomical Society Meeting Abstracts. Jan. 2010, 437.09, p. 437.09.
- [28] Spencer James and E. Baron. “Searching for Hydrogen in the Type Ib SN 1999dn”. In: *American Astronomical Society Meeting Abstracts #215*. Vol. 215. American Astronomical Society Meeting Abstracts. Jan. 2010, 430.20, p. 430.20.
- [29] E. Baron, Bin Chen, and Peter H. Hauschildt. “3D Radiative Transfer with PHOENIX”. In: *Recent Directions in Astrophysical Quantitative Spectroscopy and Radiation Hydrodynamics*. Ed. by Ivan Hubeny, James M. Stone, Keith MacGregor, and Klaus Werner. Vol. 1171. American Institute of Physics Conference Series. Sept. 2009, pp. 148–160. DOI: [10.1063/1.3250055](#). arXiv: [0908.4273 \[astro-ph.SR\]](#).
- [30] E. Baron and Peter H. Hauschildt. “3-D Radiative Transfer in the Next Decade”. In: *astro2010: The Astronomy and Astrophysics Decadal Survey*. Vol. 2010. Jan. 2009, p. 11.
- [31] Leeann Dang, D. Branch, and E. Baron. “Efficient Subclassification of Type Ia Supernova Spectra”. In: *American Astronomical Society Meeting Abstracts #213*. Vol. 213. American Astronomical Society Meeting Abstracts. Jan. 2009, 438.07, p. 438.07.
- [32] Soma De, E. Baron, and P. Hauschildt. “Importance of Time-dependence in the Rate Equations in SN Type II Atmosphere and Estimation of Recombination Time”. In: *American Astronomical Society Meeting Abstracts #213*. Vol. 213. American Astronomical Society Meeting Abstracts. Jan. 2009, 490.01, p. 490.01.
- [33] Soma De, E. Baron, and P. Hauschildt. “Radiative Transfer Calculations In The Context of Cosmological Recombination”. In: *American Astronomical Society Meeting Abstracts #214*. Vol. 214. American Astronomical Society Meeting Abstracts. May 2009, 413.01, p. 413.01.

- [34] Wolfgang Hillebrandt, Brian P. Schmidt, Edward Baron, Stefano Benetti, et al. “Division VIII / Working Group Supernova”. In: *Transactions of the International Astronomical Union, Series A* 4.27A (Jan. 2009), pp. 295–297. DOI: [10.1017/S1743921308025726](https://doi.org/10.1017/S1743921308025726).
- [35] D. Andrew Howell, A. Conley, M. Della Valle, P. Nugent, et al. “SN Science 2010–2020”. In: *astro2010: The Astronomy and Astrophysics Decadal Survey*. Vol. 2010. Jan. 2009, p. 135.
- [36] Dovi Poznanski, Eddie Baron, Stéphane Blondin, Joshua S. Bloom, et al. “Type II Supernovae as Probes of Cosmology”. In: *astro2010: The Astronomy and Astrophysics Decadal Survey*. Vol. 2010. Jan. 2009, p. 237. DOI: [10.48550/arXiv.0902.3142](https://doi.org/10.48550/arXiv.0902.3142). arXiv: [0902.3142 \[astro-ph.CO\]](https://arxiv.org/abs/0902.3142).
- [37] Soma De, E. Baron, and P. Hauschildt. “Time-dependent NLTE Rates in Type II Supernovae”. In: *American Astronomical Society Meeting Abstracts #212*. Vol. 212. American Astronomical Society Meeting Abstracts. May 2008, 64.02, p. 64.02.
- [38] E. Baron. “Spectral Modeling of Type II Supernovae”. In: *The Multicolored Landscape of Compact Objects and Their Explosive Origins*. Ed. by Tiziana di Salvo, Gian Luca Israel, Luciano Piersant, Luciano Burderi, Giorgio Matt, Amedeo Tornambe, and Maria Teresa Menna. Vol. 924. American Institute of Physics Conference Series. Aug. 2007, pp. 350–357. DOI: [10.1063/1.2774880](https://doi.org/10.1063/1.2774880). arXiv: [astro-ph/0611545 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0611545).
- [39] David Branch, Jerod Parrent, M. A. Troxel, D. Casebeer, David J. Jeffery, E. Baron, Wesley Ketchum, and Nicholas Hall. “Probing the Nature of Type I Supernovae with SYNOW”. In: *The Multicolored Landscape of Compact Objects and Their Explosive Origins*. Ed. by Tiziana di Salvo, Gian Luca Israel, Luciano Piersant, Luciano Burderi, Giorgio Matt, Amedeo Tornambe, and Maria Teresa Menna. Vol. 924. American Institute of Physics Conference Series. Aug. 2007, pp. 342–349. DOI: [10.1063/1.2774879](https://doi.org/10.1063/1.2774879).
- [40] Hyun-chul Lee, G. Worthey, A. Dotter, B. Chaboyer, et al. “Stellar Population Models with Flexible Chemistry”. In: *American Astronomical Society Meeting Abstracts*. Vol. 211. American Astronomical Society Meeting Abstracts. Dec. 2007, 79.03, p. 79.03.
- [41] E. Baron. “Biography of Hans Albrecht Bethe”. In: *arXiv e-prints*, astro-ph/0602203 (Feb. 2006), astro-ph/0602203. DOI: [10.48550/arXiv.astro-ph/0602203](https://doi.org/10.48550/arXiv.astro-ph/0602203). arXiv: [astro-ph/0602203 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0602203).
- [42] Sebastien Bongard, E. Baron, G. Smadja, D. Branch, and P. Hauschildt. “Type Ia Supernova Spectral Line Ratios as Luminosity Indicators: “From Phenomenology to Radiative Transfer and Back Again””. In: *American Astronomical Society Meeting Abstracts*. Vol. 209. American Astronomical Society Meeting Abstracts. Dec. 2006, 200.01, p. 200.01.
- [43] Brian C. Chaboyer, A. Dotter, E. Baron, J. Ferguson, D. Jevremovic, and A. Sarajedini. “The HST/ACS Survey of Galactic Globular Clusters: New Stellar Evolution Tracks, Isochrones and Luminosity Functions”. In: *American Astronomical Society Meeting Abstracts*. Vol. 209. American Astronomical Society Meeting Abstracts. Dec. 2006, 100.10, p. 100.10.

- [44] Bin Chen, R. Kantowski, E. Baron, and Sebastian Knop. “Solving the Transfer Equation for Arbitrary Flows in Static Spacetimes”. In: *APS April Meeting Abstracts*. APS Meeting Abstracts. Apr. 2006, D1.087, p. D1.087.
- [45] Edward Cheng, Yun Wang, Edward Baron, David Branch, et al. “Illuminating dark energy with the Joint Efficient Dark-energy Investigation (JEDI)”. In: *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*. Ed. by John C. Mather, Howard A. MacEwen, and Mattheus W. M. de Graauw. Vol. 6265. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. June 2006, 626529, p. 626529. DOI: [10.1117/12.669446](https://doi.org/10.1117/12.669446).
- [46] Aaron L. Dotter, B. Chaboyer, E. Baron, J. W. Ferguson, D. Jevremovic, H. Lee, and G. Worthey. “Self-Consistent Stellar Evolution Models with Updated Physics and Variable Abundances”. In: *American Astronomical Society Meeting Abstracts*. Vol. 209. American Astronomical Society Meeting Abstracts. Dec. 2006, 40.03, p. 40.03.
- [47] Wesley R. Ketchum and E. Baron. “Detailed Spectral Analysis of the Type Ib Supernova 1999dn”. In: *American Astronomical Society Meeting Abstracts*. Vol. 209. American Astronomical Society Meeting Abstracts. Dec. 2006, 150.20, p. 150.20.
- [48] Jerod T. Parrent, D. Branch, M. Troxel, D. Casebeer, D. Jeffery, E. Baron, and A. V. Filippenko. “Direct Analysis of Spectra of the Unusual Type Ib Supernova 2005bf”. In: *American Astronomical Society Meeting Abstracts*. Vol. 209. American Astronomical Society Meeting Abstracts. Dec. 2006, 150.03, p. 150.03.
- [49] M. M. Phillips, Peter Garnavich, Yun Wang, David Branch, Edward Baron, Arlin Crotts, J. Craig Wheeler, Edward Cheng, and Mario Hamuy. “The Joint Efficient Dark-energy Investigation (JEDI): measuring the cosmic expansion history from type Ia supernovae”. In: *Space Telescopes and Instrumentation I: Optical, Infrared, and Millimeter*. Ed. by John C. Mather, Howard A. MacEwen, and Mattheus W. M. de Graauw. Vol. 6265. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series. June 2006, 62652A, 62652A. DOI: [10.1117/12.670882](https://doi.org/10.1117/12.670882). arXiv: [astro-ph/0606691 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0606691).
- [50] Rollin Thomas, G. Aldering, S. Bailey, S. Bongard, et al. “Nearby Supernova Factory Spectroscopy of the Type Ia Supernova 2006D”. In: *American Astronomical Society Meeting Abstracts*. Vol. 209. American Astronomical Society Meeting Abstracts. Dec. 2006, 229.07, p. 229.07.
- [51] H. Bagherpour, R. Kantowski, D. Branch, and E. Baron. “Gravitational Lensing of Supernovae by Elliptical Navaro-Frenk-White (NFW) Haloes”. In: *American Astronomical Society Meeting Abstracts*. Vol. 207. American Astronomical Society Meeting Abstracts. Dec. 2005, 142.11, p. 142.11.
- [52] E. Baron, David Branch, David Jeffery, Peter Nugent, Rollin Thomas, Sebastien Bongard, Peter H. Hauschildt, Daniel Kasen, and Dimitri Mihalas. “Quantitative Spectroscopy of Supernovae for Dark Energy Studies”. In: *arXiv e-prints*, astro-ph/0510166 (Oct. 2005), astro-ph/0510166. DOI: [10.48550/arXiv.astro-ph/0510166](https://doi.org/10.48550/arXiv.astro-ph/0510166). arXiv: [astro-ph/0510166 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0510166).

- [53] E. Baron and Peter H. Hauschildt. “Overview of supernova modeling with PHOENIX”. In: *Memorie della Societa Astronomica Italiana Supplementi* 7 (Jan. 2005), p. 86.
- [54] E. Baron, Peter E. Nugent, David Branch, and P. H. Hauschildt. “Early Spectra of Supernovae”. In: *1604-2004: Supernovae as Cosmological Lighthouses*. Ed. by M. Turatto, S. Benetti, L. Zampieri, and W. Shea. Vol. 342. Astronomical Society of the Pacific Conference Series. Dec. 2005, p. 351. doi: [10.48550/arXiv.astro-ph/0409659](https://doi.org/10.48550/arXiv.astro-ph/0409659). arXiv: [astro-ph/0409659 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0409659).
- [55] D. Casebeer, E. Baron, K. Leighly, D. Jevremovic, and A. Nava. “Spectral Synthesis Models for AGN Winds Using PHOENIX”. In: *American Astronomical Society Meeting Abstracts*. Vol. 207. American Astronomical Society Meeting Abstracts. Dec. 2005, 197.04, p. 197.04.
- [56] Arlin Crotts, Peter Garnavich, William Priedhorsky, Salman Habib, et al. “Joint Efficient Dark-energy Investigation (JEDI): a Candidate Implementation of the NASA-DOE Joint Dark Energy Mission (JDEM)”. In: *arXiv e-prints*, astro-ph/0507043 (July 2005), astro-ph/0507043. doi: [10.48550/arXiv.astro-ph/0507043](https://doi.org/10.48550/arXiv.astro-ph/0507043). arXiv: [astro-ph/0507043 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0507043).
- [57] A. Dotter, B. Chaboyer, E. Baron, J. W. Ferguson, J. B. Jensen, A. Sarajedini, and T. von Hippel. “Self Consistent Isochrones with Flexible Chemistry: The Age, Metallicity, and He Content of NGC 6791”. In: *American Astronomical Society Meeting Abstracts*. Vol. 207. American Astronomical Society Meeting Abstracts. Dec. 2005, 71.10, p. 71.10.
- [58] N. R. Hall, D. Branch, and E. Baron. “The Effects of Spectral Lines on Magnitudes and Colors of Type Ia Supernovae”. In: *American Astronomical Society Meeting Abstracts*. Vol. 207. American Astronomical Society Meeting Abstracts. Dec. 2005, 171.14, p. 171.14.
- [59] P. Hauschildt and E. Baron. “Cool stellar atmospheres with PHOENIX.” In: *Memorie della Societa Astronomica Italiana Supplementi* 7 (Jan. 2005), p. 140.
- [60] Derek Homeier, France Allard, Peter Hauschildt, Travis Barman, Andreas Schweitzer, and Edward Baron. “Spectral Properties of Brown Dwarfs and Hot Jupiters”. In: *High Resolution Infrared Spectroscopy in Astronomy*. Jan. 2005, pp. 465–476. doi: [10.1007/10995082\\_74](https://doi.org/10.1007/10995082_74). arXiv: [astro-ph/0405438 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0405438).
- [61] D. Jevremović, E. Baron, and P. H. Hauschildt. “Modeling of stellar chromospheres: Phoenix vs. Multi”. In: *13th Cambridge Workshop on Cool Stars, Stellar Systems and the Sun*. Ed. by F. Favata, G. A. J. Hussain, and B. Battrick. Vol. 560. ESA Special Publication. Mar. 2005, p. 673.
- [62] W. R. Ketchum and E. Baron. “Preliminary Spectral Analysis of SN 1999dn”. In: *American Astronomical Society Meeting Abstracts*. Vol. 207. American Astronomical Society Meeting Abstracts. Dec. 2005, 171.11, p. 171.11.
- [63] J. Parrent, D. Branch, L. C. Dang, N. Hall, W. Ketchum, M. Melakayil, M. Troxel, E. Baron, and D. Jeffery. “Comparative Direct Analysis of Type Ia Supernova Spectra. II. Maximum Light”. In: *American Astronomical Society Meeting Abstracts*. Vol. 207. American Astronomical Society Meeting Abstracts. Dec. 2005, 171.08, p. 171.08.

- [64] M. A. Troxel, W. R. Ketchum, D. Branch, P. Garnavich, E. Baron, and Y. Wang. “Integration of Near-Maximum-Light Type Ia Supernova Spectra as a Method of High-z Identification”. In: *American Astronomical Society Meeting Abstracts*. Vol. 207. American Astronomical Society Meeting Abstracts. Dec. 2005, 171.10, p. 171.10.
- [65] Y. Wang, E. Baron, D. Branch, S. Casertano, et al. “Illuminating Dark Energy with the Joint Efficient Dark-energy Investigation (JEDI)”. In: *American Astronomical Society Meeting Abstracts*. Vol. 207. American Astronomical Society Meeting Abstracts. Dec. 2005, 100.04, p. 100.04.
- [66] H. Bagherpour, E. Baron, D. Branch, and R. Kantowski. “Effects of Microlensing on the Light Curves and P-Cygni Profiles of Supernovae Type Ia”. In: *American Astronomical Society Meeting Abstracts*. Vol. 205. American Astronomical Society Meeting Abstracts. Dec. 2004, 28.04, p. 28.04.
- [67] D. Casebeer, E. Baron, D. Branch, and K. Leighly. “Modeling AGN Spectra with PHOENIX: A Self-consistent Approach”. In: *AGN Physics with the Sloan Digital Sky Survey*. Ed. by Gordon T. Richards and Patrick B. Hall. Vol. 311. Astronomical Society of the Pacific Conference Series. June 2004, p. 231. DOI: [10.48550/arXiv.astro-ph/0401346](https://doi.org/10.48550/arXiv.astro-ph/0401346) [astro-ph]. arXiv: [astro-ph/0401346](https://arxiv.org/abs/astro-ph/0401346) [astro-ph].
- [68] D. Casebeer, E. Baron, and K. Leighly. “An Alternative Approach to Modelling Some Active Galactic Nuclei: Spherically Symmetric Outflows”. In: *American Astronomical Society Meeting Abstracts*. Vol. 205. American Astronomical Society Meeting Abstracts. Dec. 2004, 27.03, p. 27.03.
- [69] E. J. Lentz, E. Baron, and P. H. Hauschildt. “Hunting for the signatures of 3-D explosions with 1-D synthetic spectra”. In: *Cosmic explosions in three dimensions*. Ed. by Peter Höflich, Pawan Kumar, and J. Craig Wheeler. Jan. 2004, p. 173.
- [70] D. Richardson, D. Branch, and E. Baron. “Absolute Visual Light Curves of Supernovae in GRB Afterglows”. In: *American Astronomical Society Meeting Abstracts*. Vol. 205. American Astronomical Society Meeting Abstracts. Dec. 2004, 71.06, p. 71.06.
- [71] J. P. Aufdenberg, P. H. Hauschildt, and E. Baron. “Spherical and Expanding Model Atmosphere Predictions for Interferometry”. In: *Stellar Atmosphere Modeling*. Ed. by Ivan Hubeny, Dimitri Mihalas, and Klaus Werner. Vol. 288. Astronomical Society of the Pacific Conference Series. Jan. 2003, p. 239.
- [72] T. S. Barman, P. H. Hauschildt, A. Schweitzer, P. C. Stancil, E. Baron, and F. Allard. “NLTE Calculations of a Na D Doublet in the Atmosphere of the Transiting Planet HD209458b”. In: *Scientific Frontiers in Research on Extrasolar Planets*. Ed. by Drake Deming and Sara Seager. Vol. 294. Astronomical Society of the Pacific Conference Series. Jan. 2003, pp. 467–470.
- [73] E. Baron, P. H. Hauschildt, F. Allard, E. J. Lentz, J. Aufdenberg, A. Schweitzer, and T. Barman. “Highlights of Stellar Modeling with PHOENIX”. In: *Modelling of Stellar Atmospheres*. Ed. by N. Piskunov, W. W. Weiss, and D. F. Gray. Vol. 210. Jan. 2003, p. 19. DOI: [10.48550/arXiv.astro-ph/0209052](https://doi.org/10.48550/arXiv.astro-ph/0209052). arXiv: [astro-ph/0209052](https://arxiv.org/abs/astro-ph/0209052) [astro-ph].

- [74] E. Baron, P. H. Hauschildt, and D. Lowenthal. “Parallelization Strategies for ALI Radiative Transfer in Moving Media”. In: *Stellar Atmosphere Modeling*. Ed. by Ivan Hubeny, Dimitri Mihalas, and Klaus Werner. Vol. 288. Astronomical Society of the Pacific Conference Series. Jan. 2003, p. 385. DOI: [10.48550/arXiv.astro-ph/0207043](https://doi.org/10.48550/arXiv.astro-ph/0207043). arXiv: [astro-ph/0207043 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0207043).
- [75] P. H. Hauschildt, F. Allard, E. Baron, J. Aufdenberg, and A. Schweitzer. “Stellar atmospheres and synthetic spectra for GAIA”. In: *GAIA Spectroscopy: Science and Technology*. Ed. by Ulisse Munari. Vol. 298. Astronomical Society of the Pacific Conference Series. Jan. 2003, p. 179.
- [76] P. H. Hauschildt, T. S. Barman, E. Baron, and F. Allard. “Temperature Correction Methods”. In: *Stellar Atmosphere Modeling*. Ed. by Ivan Hubeny, Dimitri Mihalas, and Klaus Werner. Vol. 288. Astronomical Society of the Pacific Conference Series. Jan. 2003, p. 227.
- [77] E. J. Lentz, E. Baron, and P. H. Hauschildt. “Modelling the Spectra of SN 1998bw from a Jet Powered Explosion Model”. In: *American Astronomical Society Meeting Abstracts*. Vol. 203. American Astronomical Society Meeting Abstracts. Dec. 2003, 45.15, p. 45.15.
- [78] E. J. Lentz, E. Baron, and P. H. Hauschildt. “Time-Dependent Moment Equation Method for Supernova Lightcurves”. In: *Stellar Atmosphere Modeling*. Ed. by Ivan Hubeny, Dimitri Mihalas, and Klaus Werner. Vol. 288. Astronomical Society of the Pacific Conference Series. Jan. 2003, p. 275.
- [79] E. J. Lentz, P. H. Hauschildt, J. P. Aufdenberg, and E. Baron. “A New Grid of Atmospheres for Early-Type Stars”. In: *Modelling of Stellar Atmospheres*. Ed. by N. Piskunov, W. W. Weiss, and D. F. Gray. Vol. 210. Jan. 2003, B13.
- [80] Eric J. Lentz, Peter H. Hauschildt, Jason P. Aufdenberg, and Ed Baron. “Model atmospheres of massive zero-metallicity stars”. In: *A Massive Star Odyssey: From Main Sequence to Supernova*. Ed. by Karel van der Hucht, Artemio Herrero, and César Esteban. Vol. 212. Jan. 2003, p. 416.
- [81] Peter Lundqvist, Seppo Mattila, Jesper Sollerman, E. Baron, Pascale Ehrenfreund, Claes Fransson, Bruno Leibundgut, and Ken’ichi Nomoto. “High-resolution optical studies of nearby Type Ia supernovae”. In: *arXiv e-prints*, astro-ph/0309006 (Aug. 2003), astro-ph/0309006. DOI: [10.48550/arXiv.astro-ph/0309006](https://doi.org/10.48550/arXiv.astro-ph/0309006). arXiv: [astro-ph/0309006 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0309006).
- [82] Peter Lundqvist, Jesper Sollerman, Bruno Leibundgut, E. Baron, Claes Fransson, and Ken’ichi Nomoto. “Constraining Circumstellar Matter in SNe Ia – High-Resolution Optical Studies with VLT/UVES”. In: *From Twilight to Highlight: The Physics of Supernovae*. Ed. by Wolfgang Hillebrandt and Bruno Leibundgut. Jan. 2003, p. 309. DOI: [10.1007/10828549\\_43](https://doi.org/10.1007/10828549_43).
- [83] Andrea Pastorello, Eddie Baron, Stefano Benetti, David Branch, et al. “Faint Core-Collapse Supernovae”. In: *From Twilight to Highlight: The Physics of Supernovae*. Ed. by Wolfgang Hillebrandt and Bruno Leibundgut. Jan. 2003, p. 210. DOI: [10.1007/10828549\\_27](https://doi.org/10.1007/10828549_27).

- [84] D. L. Richardson, D. Branch, and E. Baron. “Absolute Light Curves of Stripped Envelope Supernovae”. In: *American Astronomical Society Meeting Abstracts*. Vol. 203. American Astronomical Society Meeting Abstracts. Dec. 2003, 45.01, p. 45.01.
- [85] A. Schweitzer, P. H. Hauschildt, E. Baron, and F. Allard. “Using Superlevels to Calculate Molecular NLTE Problems”. In: *Stellar Atmosphere Modeling*. Ed. by Ivan Hubeny, Dimitri Mihalas, and Klaus Werner. Vol. 288. Astronomical Society of the Pacific Conference Series. Jan. 2003, p. 339.
- [86] R. C. Thomas, E. Baron, and D. Branch. “Synthetic Spectra from 3D Models of Supernovae”. In: *Stellar Atmosphere Modeling*. Ed. by Ivan Hubeny, Dimitri Mihalas, and Klaus Werner. Vol. 288. Astronomical Society of the Pacific Conference Series. Jan. 2003, p. 453. DOI: [10.48550/arXiv.astro-ph/0207089](https://doi.org/10.48550/arXiv.astro-ph/0207089). arXiv: [astro-ph/0207089 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0207089).
- [87] P. H. Hauschildt, F. Allard, A. Schweitzer, and E. Baron. “Cool Stellar Atmospheres”. In: *Observed HR Diagrams and Stellar Evolution*. Ed. by Thibault Lejeune and João Fernandes. Vol. 274. Astronomical Society of the Pacific Conference Series. Jan. 2002, p. 95.
- [88] Peter H. Hauschildt, G. Schwarz, C. Ian Short, E. Baron, and S. Starrfield. “Nova Model Atmospheres”. In: *Classical Nova Explosions*. Ed. by Margarita Hernanz and Jordi José. Vol. 637. American Institute of Physics Conference Series. Nov. 2002, pp. 249–258. DOI: [10.1063/1.1518209](https://doi.org/10.1063/1.1518209).
- [89] Peter H. Hauschildt, Andreas Schweitzer, F. Allard, J. W. Ferguson, D. Alexander, and E. Baron. “Cool stellar atmospheres”. In: *New Quests in Stellar Astrophysics: the Link Between Stars and Cosmology*. Ed. by Miguel Chávez, Alessandro Bressan, Alberto Buzzoni, and Divakara Mayya. Vol. 274. Astrophysics and Space Science Library. Jan. 2002, pp. 15–26. DOI: [10.1007/978-94-010-0393-3\\_2](https://doi.org/10.1007/978-94-010-0393-3_2).
- [90] D. Kasen, R. Thomas, P. Nugent, E. Baron, and D. Branch. “Synthetic Spectra of 3D Supernovae: Monte Carlo Radiative Equilibrium Models”. In: *American Astronomical Society Meeting Abstracts*. Vol. 201. American Astronomical Society Meeting Abstracts. Dec. 2002, 56.06, p. 56.06.
- [91] D. Richardson, R. Thomas, D. Casebeer, D. Branch, and E. Baron. “SUSPECT, The Online Supernova Spectrum Archive: Year Two”. In: *American Astronomical Society Meeting Abstracts*. Vol. 201. American Astronomical Society Meeting Abstracts. Dec. 2002, 56.09, p. 56.09.
- [92] J. P. Aufdenberg, A. Quirrenbach, P. H. Hauschildt, and E. Baron. “Diameters of Cool Giant Stars at 712 nm & 754 nm: Theory vs. Observations”. In: *American Astronomical Society Meeting Abstracts*. Vol. 199. American Astronomical Society Meeting Abstracts. Dec. 2001, 92.07, p. 92.07.
- [93] David Branch, E. Baron, and David J. Jeffery. “Optical Spectra of Supernovae”. In: *arXiv e-prints*, astro-ph/0111573 (Nov. 2001), astro-ph/0111573. DOI: [10.48550/arXiv.astro-ph/0111573](https://doi.org/10.48550/arXiv.astro-ph/0111573). arXiv: [astro-ph/0111573 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0111573).

- [94] David Branch, Saul Perlmutter, E. Baron, and Peter Nugent. “Coping with Type Ia Supernova “Evolution” When Probing the Nature of the Dark Energy”. In: *arXiv e-prints*, astro-ph/0109070 (Sept. 2001), astro-ph/0109070. doi: [10.48550/arXiv.astro-ph/0109070](https://doi.org/10.48550/arXiv.astro-ph/0109070). arXiv: [astro-ph/0109070 \[astro-ph\]](https://arxiv.org/abs/astro-ph/0109070).
- [95] P. Hauschildt, France Allard, Travis Barman, Andreas Schweitzer, E. Baron, and S. K. Leggett. “Cool Stellar Atmospheres”. In: *Tetons 4: Galactic Structure, Stars and the Interstellar Medium*. Ed. by Charles E. Woodward, Michael D. Bicay, and J. Michael Shull. Vol. 231. Astronomical Society of the Pacific Conference Series. Jan. 2001, p. 427.
- [96] P. H. Hauschildt, F. Allard, J. Aufdenberg, T. Barman, A. Schweitzer, and E. Baron. “Stellar Atmospheres”. In: *Microlensing 2000: A New Era of Microlensing Astrophysics*. Ed. by J. W. Menzies and Penny D. Sackett. Vol. 239. Astronomical Society of the Pacific Conference Series. Jan. 2001, p. 175.
- [97] Peter H. Hauschildt, David K. Lowenthal, E. Baron, and France Allard. “Parallel Supercomputing In Stellar Atmosphere Simulations”. In: *Spectroscopic Challenges of Photoionized Plasmas*. Ed. by Gary Ferland and Daniel Wolf Savin. Vol. 247. Astronomical Society of the Pacific Conference Series. Jan. 2001, p. 303.
- [98] R. C. Mitchell, E. Baron, D. Branch, P. Lundqvist, S. I. Blinnikov, P. H. Hauschildt, and C. S. J. Pun. “A Galactic Distance Scale Using Type-II Supernovae”. In: *American Astronomical Society Meeting Abstracts #198*. Vol. 198. American Astronomical Society Meeting Abstracts. May 2001, 39.04, p. 39.04.
- [99] D. Richardson, R. C. Thomas, D. Casebeer, Z. Blankenship, S. Ratowt, E. Baron, and D. Branch. “SUSPECT - The Online Supernova Spectrum Database”. In: *American Astronomical Society Meeting Abstracts*. Vol. 199. American Astronomical Society Meeting Abstracts. Dec. 2001, 84.08, p. 84.08.
- [100] C. I. Short, P. H. Hauschildt, and E. Baron. “Non-LTE Modeling of Nova Cygni 1992”. In: *Tetons 4: Galactic Structure, Stars and the Interstellar Medium*. Ed. by Charles E. Woodward, Michael D. Bicay, and J. Michael Shull. Vol. 231. Astronomical Society of the Pacific Conference Series. Jan. 2001, p. 548.
- [101] R. C. Thomas, D. Branch, and E. Baron. “Spectral Consequences of Deviation from a Spherically Symmetric Composition in Type Ia Supernovae”. In: *American Astronomical Society Meeting Abstracts #198*. Vol. 198. American Astronomical Society Meeting Abstracts. May 2001, 39.03, p. 39.03.
- [102] E. Baron, D. Branch, R. Thomas, and P. Hauschildt. “Cosmological Measurements from Type II Supernovae with SNAP”. In: *American Astronomical Society Meeting Abstracts*. Vol. 197. American Astronomical Society Meeting Abstracts. Dec. 2000, 61.08, p. 61.08.
- [103] P. Nugent, D. Kasen, E. Baron, and D. Branch. “Supernova Evolution and its Impact on Cosmological Measurements”. In: *American Astronomical Society Meeting Abstracts*. Vol. 197. American Astronomical Society Meeting Abstracts. Dec. 2000, 81.12, p. 81.12.

- [104] J. P. Aufdenberg, P. H. Hauschildt, and E. Baron. “Model Atmospheres of Hot Luminous Stars with Winds”. In: *American Astronomical Society Meeting Abstracts #194*. Vol. 194. American Astronomical Society Meeting Abstracts. May 1999, 13.04, p. 13.04.
- [105] J. P. Aufdenberg, P. H. Hauschildt, and E. Baron. “Non-LTE Line-blanketed Stellar Wind Atmosphere Models for the A-supergiant Deneb”. In: *American Astronomical Society Meeting Abstracts*. Vol. 195. American Astronomical Society Meeting Abstracts. Dec. 1999, 50.01, p. 50.01.
- [106] T. S. Barman, P. H. Hauschildt, E. Baron, and C. I. Short. “A Grid of White Dwarf NLTE Model Atmospheres”. In: *American Astronomical Society Meeting Abstracts #193*. Vol. 193. American Astronomical Society Meeting Abstracts. Jan. 1999, 124.10, p. 124.10.
- [107] D. Branch, K. Hatano, Y. L. Qiu, E. Baron, and F. -K. Thielemann. “On the Spectrum of the Peculiar Type Ia Supernova 1997br and the Nature of SN 1991T-like Events”. In: *American Astronomical Society Meeting Abstracts*. Vol. 195. American Astronomical Society Meeting Abstracts. Dec. 1999, 38.04, p. 38.04.
- [108] K. Hatano, D. Branch, E. Baron, and P. Garnavich. “Multi-Dimensional Nature of the Spectra of Type Ia Supernovae”. In: *American Astronomical Society Meeting Abstracts*. Vol. 195. American Astronomical Society Meeting Abstracts. Dec. 1999, 38.05, p. 38.05.
- [109] E. J. Lentz, E. Baron, D. Branch, and P. H. Hauschildt. “SN 1984A and Delayed Detonation Models of Type Ia Supernovae”. In: *American Astronomical Society Meeting Abstracts*. Vol. 195. American Astronomical Society Meeting Abstracts. Dec. 1999, 38.07, p. 38.07.
- [110] E. J. Lentz, E. Baron, D. Branch, P. H. Hauschildt, and P. E. Nugent. “Metallicity Effects in NLTE Model Atmospheres of Type IA Supernovae”. In: *American Astronomical Society Meeting Abstracts #194*. Vol. 194. American Astronomical Society Meeting Abstracts. May 1999, 86.06, p. 86.06.
- [111] R. C. Mitchell, E. Baron, D. Branch, P. Lundqvist, S. I. Blinnikov, and P. H. Hauschildt. “Ni<sup>56</sup> Mixing in the Early Expansion Phase of SN 1987A”. In: *American Astronomical Society Meeting Abstracts*. Vol. 195. American Astronomical Society Meeting Abstracts. Dec. 1999, 43.05, p. 43.05.
- [112] Y. L. Qiu, K. Hatano, D. Branch, and E. Baron. “Supernova 1999dn: Another Well Observed Type Ib SN”. In: *American Astronomical Society Meeting Abstracts*. Vol. 195. American Astronomical Society Meeting Abstracts. Dec. 1999, 38.10, p. 38.10.
- [113] C. I. Short, P. H. Hauschildt, S. N. Shore, S. Starrfield, and E. Baron. “Nova V382 Velorum: first Hubble Space Telescope spectrum and NLTE atmospheric modeling”. In: *American Astronomical Society Meeting Abstracts*. Vol. 195. American Astronomical Society Meeting Abstracts. Dec. 1999, 36.06, p. 36.06.

- [114] J. P. Aufdenberg, P. H. Hauschildt, and E. Baron. “Spherical Non-LTE Line-Blanketed Stellar-Atmosphere Models of the Early-B Giants epsilon-CMa, beta-CMa, and alpha-Vir”. In: *Properties of Hot Luminous Stars*. Ed. by Ian Howarth. Vol. 131. Astronomical Society of the Pacific Conference Series. Jan. 1998, p. 127.
- [115] J. P. Aufdenberg, P. H. Hauschildt, and E. Baron. “The Lyman Continuum of O stars From Hydrostatic Spherical Non-LTE Line-Blanketed Model Atmospheres”. In: *American Astronomical Society Meeting Abstracts*. Vol. 193. American Astronomical Society Meeting Abstracts. Dec. 1998, 44.08, p. 44.08.
- [116] E. Baron, John J. Cowan, Tamara Rogers, and Kris Gutierrez. “R-process in Low Entropy Neutrino Driven Winds”. In: *arXiv e-prints*, astro-ph/9802360 (Feb. 1998), astro-ph/9802360. doi: [10.48550/arXiv.astro-ph/9802360](https://doi.org/10.48550/arXiv.astro-ph/9802360). arXiv: [astro-ph/9802360 \[astro-ph\]](https://arxiv.org/abs/astro-ph/9802360).
- [117] M. Blaylock, D. Branch, J. Deaton, E. Baron, P. M. Garnavich, R. P. Kirshner, and SINS Team. “Direct Analysis of Spectra of the Type IIn Supernova 1998S”. In: *American Astronomical Society Meeting Abstracts*. Vol. 193. American Astronomical Society Meeting Abstracts. Dec. 1998, 47.06, p. 47.06.
- [118] D. Casebeer, M. Blaylock, J. Deaton, D. Branch, E. Baron, D. Richardson, and C. Ancheta. “Palomar and Lick Observatory Photographic Supernova Spectra”. In: *American Astronomical Society Meeting Abstracts*. Vol. 193. American Astronomical Society Meeting Abstracts. Dec. 1998, 47.09, p. 47.09.
- [119] J. Deaton, D. Branch, E. Baron, A. Fisher, R. Kirshner, and P. Garnavich. “Spectral Analysis of the Peculiar Type IC Supernova 1997ef”. In: *American Astronomical Society Meeting Abstracts #192*. Vol. 192. American Astronomical Society Meeting Abstracts. May 1998, 06.10, p. 06.10.
- [120] K. Hatano, D. Branch, and E. Baron. “Direct Analysis of Spectra of the Type IA Supernova 1994D”. In: *American Astronomical Society Meeting Abstracts*. Vol. 193. American Astronomical Society Meeting Abstracts. Dec. 1998, 47.03, p. 47.03.
- [121] K. Hatano, D. Branch, A. Fisher, and E. Baron. “On the Spectra and Nature of the Peculiar Type IA SN 1991T”. In: *American Astronomical Society Meeting Abstracts #192*. Vol. 192. American Astronomical Society Meeting Abstracts. May 1998, 06.08, p. 06.08.
- [122] P. H. Hauschildt, S. N. Shore, G. Schwarz, S. Starrfield, E. Baron, and F. Allard. “The physics of early nova spectra and light curves”. In: *Stellar Evolution, Stellar Explosions and Galactic Chemical Evolution*. Ed. by Anthony Mezzacappa. Jan. 1998, p. 453.
- [123] Peter H. Hauschildt, J. Aufdenberg, S. Starrfield, and E. Baron. “Model Atmospheres for White Dwarfs in Cataclysmic Variables”. In: *Wild Stars in the Old West*. Ed. by S. Howell, E. Kuulkers, and C. Woodward. Vol. 137. Astronomical Society of the Pacific Conference Series. Jan. 1998, p. 96.

- [124] E. J. Lentz, E. Baron, D. Branch, P. H. Hauschildt, C. Fransson, P. Lundqvist, P. M. Garnavich, R. P. Kirshner, and SINS Team. “Spectral Analysis of Circumstellar Wind Interaction in the Type IIn Supernova 1998S”. In: *American Astronomical Society Meeting Abstracts*. Vol. 193. American Astronomical Society Meeting Abstracts. Dec. 1998, 47.08, p. 47.08.
- [125] J. P. Aufdenberg, R. Sankrit, P. H. Hauschildt, and E. Baron. “Spherical Non-LTE Line-Blanketed Stellar Atmosphere Models of epsilon CMa, beta CMa, and alpha VIR and the Lyman Continuum in the Early B Giant Stars.” In: *American Astronomical Society Meeting Abstracts*. Vol. 191. American Astronomical Society Meeting Abstracts. Dec. 1997, 12.01, p. 12.01.
- [126] E. Baron, P. H. Hauschildt, and A. Mezzacappa. “NLTE modeling of SNe Ia near maximum light”. In: *Thermonuclear Supernovae*. Ed. by P. Ruiz-Lapuente, R. Canal, and J. Isern. Vol. 486. NATO Advanced Study Institute (ASI) Series C. Jan. 1997, p. 627. DOI: [10.1007/978-94-011-5710-0\\_38](https://doi.org/10.1007/978-94-011-5710-0_38).
- [127] J. Deaton, D. Branch, A. Fisher, and E. Baron. “Direct Spectral Analysis of the Type IC Supernova 1994I”. In: *American Astronomical Society Meeting Abstracts*. Vol. 191. American Astronomical Society Meeting Abstracts. Dec. 1997, 39.04, p. 39.04.
- [128] E. J. Lentz, D. Branch, and E. Baron. “Simulation of the Galactic 1.809 MeV (26) AL Gamma-Ray Flux”. In: *American Astronomical Society Meeting Abstracts*. Vol. 191. American Astronomical Society Meeting Abstracts. Dec. 1997, 48.04, p. 48.04.
- [129] J. F. Buell, R. B. C. Henry, and E. Baron. “AGB Models, the Yields of Helium and CNO Products from Intermediate Mass Stars, and Planetary Nebulae Abundances”. In: *From Stars to Galaxies: the Impact of Stellar Physics on Galaxy Evolution*. Ed. by C. Leitherer, U. Fritze-von-Alvensleben, and J. Huchra. Vol. 98. Astronomical Society of the Pacific Conference Series. Jan. 1996, p. 202.
- [130] A. Fisher, D. Branch, E. Baron, and P. Nugent. “Low Hubble constant from Type IA supernovae by van den Bergh’s method”. In: *American Astronomical Society Meeting Abstracts #188*. Vol. 188. American Astronomical Society Meeting Abstracts. May 1996, 76.11, p. 76.11.
- [131] A. Fisher, D. Branch, E. Baron, and P. Nugent. “Low Hubble constant from Type Ia supernovae by van den Bergh’s method.” In: *Bulletin of the American Astronomical Society*. Vol. 28. Sept. 1996, p. 953.
- [132] K. Hatano, A. Fisher, D. Branch, and E. Baron. “The Observability of Supernovae and Novae in the Dawson and Johnson Model of the Galaxy”. In: *American Astronomical Society Meeting Abstracts #188*. Vol. 188. American Astronomical Society Meeting Abstracts. May 1996, 76.09, p. 76.09.
- [133] K. Hatano, A. Fisher, D. Branch, and E. Baron. “The observability of supernovae and novae in the Dawson and Johnson model of the Galaxy.” In: *Bulletin of the American Astronomical Society*. Vol. 28. May 1996, p. 953.

- [134] P. H. Hauschildt, E. Baron, F. Allard, and Sumner Starrfield. “Model Atmospheres for Novae and Supernovae”. In: *American Astronomical Society Meeting Abstracts #188*. Vol. 188. American Astronomical Society Meeting Abstracts. May 1996, 32.04, p. 32.04.
- [135] P. H. Hauschildt, E. Baron, P. Nugent, and D. Branch. “Spectrum synthesis of type IA SNe”. In: *Hydrogen Deficient Stars*. Ed. by C. S. Jeffery and U. Heber. Vol. 96. Astronomical Society of the Pacific Conference Series. Jan. 1996, p. 175.
- [136] Peter H. Hauschildt, S. Starrfield, E. Baron, and F. Allard. “The Hot Winds of Novae”. In: *IAU Colloq. 152: Astrophysics in the Extreme Ultraviolet*. Ed. by Stuart Bowyer and Roger F. Malina. Jan. 1996, p. 413.
- [137] D. Richardson, D. Branch, D. Casebeer, J. Deaton, and E. Baron. “Supernova Absolute Magnitude Distributions”. In: *American Astronomical Society Meeting Abstracts*. Vol. 189. American Astronomical Society Meeting Abstracts. Dec. 1996, 45.11, p. 45.11.
- [138] D. Richardson, P. Nugent, A. Fisher, E. Baron, and D. Branch. “Spectral Line Ratios as Luminosity Indicators in Type IA Supernovae”. In: *American Astronomical Society Meeting Abstracts #188*. Vol. 188. American Astronomical Society Meeting Abstracts. May 1996, 76.10, p. 76.10.
- [139] J. Buell, R. B. C. Henry, and E. Baron. “AGB models, the Yields of Helium and CNO products from Intermediate Mass Stars, and Planetary Nebulae Abundances”. In: *American Astronomical Society Meeting Abstracts*. Vol. 187. American Astronomical Society Meeting Abstracts. Dec. 1995, 81.01, p. 81.01.
- [140] P. H. Hauschildt, S. Starrfield, S. N. Shore, F. Allard, and E. Baron. “The Physics of Early Nova Spectra”. In: *Cataclysmic Variables*. Ed. by A. Bianchini, M. della Valle, and M. Orio. Vol. 205. Astrophysics and Space Science Library. Jan. 1995, p. 257. DOI: [10.1007/978-94-011-0335-0\\_82](https://doi.org/10.1007/978-94-011-0335-0_82).
- [141] T. R. Young, E. Baron, and D. Branch. “A Parameter Study Of Type II Supernova Light Curves”. In: *American Astronomical Society Meeting Abstracts*. Vol. 187. American Astronomical Society Meeting Abstracts. Dec. 1995, 97.01, p. 97.01.
- [142] F. R. Boffi, D. Branch, and E. Baron. “Radio Emission from Type IA Supernovae as a Test of Symbiotic–Star Progenitor Systems”. In: *American Astronomical Society Meeting Abstracts #184*. Vol. 184. American Astronomical Society Meeting Abstracts. May 1994, 57.07, p. 57.07.
- [143] J. Buell, R. B. C. Henry, and E. Baron. “Envelope Burning in AGB stars and the Abundances of (4) He and (14) N in Planetary Nebulae”. In: *American Astronomical Society Meeting Abstracts #184*. Vol. 184. American Astronomical Society Meeting Abstracts. May 1994, 57.01, p. 57.01.
- [144] J. Buell, R. B. C. Henry, E. Baron, and K. Kwinter. “Helium in Planetary Nebulae and Asymptotic Giant Branch Models”. In: *American Astronomical Society Meeting Abstracts*. Vol. 185. American Astronomical Society Meeting Abstracts. Dec. 1994, 47.14, p. 47.14.

- [145] Peter Nugent, E. Baron, David Branch, and Peter Hauschildt. “NLTE Synthetic Spectra of Type IA Supernovae”. In: *American Astronomical Society Meeting Abstracts #184*. Vol. 184. American Astronomical Society Meeting Abstracts. May 1994, 57.06, p. 57.06.
- [146] Peter Nugent, E. Baron, David Branch, and Peter Hauschildt. “Spectrum Synthesis of the Type IA SNe 1992A and 1981B”. In: *American Astronomical Society Meeting Abstracts*. Vol. 185. American Astronomical Society Meeting Abstracts. Dec. 1994, 79.02, p. 79.02.
- [147] T. R. Young, E. Baron, and D. Branch. “Constraints On Model Parameters From The Light Curve Of SN 1993J”. In: *American Astronomical Society Meeting Abstracts #184*. Vol. 184. American Astronomical Society Meeting Abstracts. May 1994, 66.03, p. 66.03.
- [148] E. Baron, P. H. Hauschildt, and D. Branch. “Spectral Analysis of SN 1993J”. In: *American Astronomical Society Meeting Abstracts*. Vol. 183. American Astronomical Society Meeting Abstracts. Dec. 1993, 39.02, p. 39.02.
- [149] T. R. Young, E. Baron, and D. Branch. “Supernova 1984L and its problematic progenitor”. In: *Nuclear Physics in the Universe*. Jan. 1993, pp. 399–409.
- [150] T. R. Young, E. Baron, and D. Branch. “Type II Supernova Light Curves: Influence of the He Core Mass”. In: *American Astronomical Society Meeting Abstracts*. Vol. 183. American Astronomical Society Meeting Abstracts. Dec. 1993, 38.04, p. 38.04.
- [151] S. E. Woosley, F. X. Timmes, and E. Baron. “Accretion induced collapse.” In: *X-Ray Binaries and Recycled Pulsars*. Ed. by Edward P. J. van den Heuvel and S. A. Rappaport. Vol. 377. NATO Advanced Study Institute (ASI) Series C. Jan. 1992, pp. 167–187.
- [152] T. R. Young, E. Baron, and D. Branch. “Supernovae Light Curves : Clues to the Progenitor and Explosions, using Flux-Limited Diffusion”. In: *American Astronomical Society Meeting Abstracts*. Vol. 181. American Astronomical Society Meeting Abstracts. Dec. 1992, 76.06, p. 76.06.
- [153] E. Baron and J. Cooperstein. “Initial Models and the Prompt Mechanism of Supernova Type-II”. In: *Supernovae*. Ed. by Stanford E. Woosley. Jan. 1991, p. 342.
- [154] E. A. Baron. “A Look at Dissipation in Stellar Collapse”. In: *Supernovae*. Ed. by Stanford E. Woosley. Jan. 1991, p. 365.
- [155] S. E. Woosley and E. Baron. “Conditions for the  $\tau$  - Process”. In: *Bulletin of the American Astronomical Society*. Vol. 23. Sept. 1991, p. 1357.
- [156] S. E. Woosley and E. Baron. “Conditions for the r-process.” In: *Bulletin of the American Astronomical Society*. Vol. 23. Sept. 1991, p. 1357.
- [157] S. E. Woosley and E. Baron. “No Gamma-Ray Burst from White Dwarf Collapse”. In: *Bulletin of the American Astronomical Society*. Vol. 23. Mar. 1991, p. 975.
- [158] J. Cooperstein and E. A. Baron. “Supernovae: the direct mechanism and the equation of state.” In: *Supernovae*. Jan. 1990, pp. 213–266.

- [159] E. Baron. “Explosions in Type II Supernovae”. In: *Big Bang, Active Galactic Nuclei and Supernovae*. Ed. by S. Hayakawa and K. Sato. Jan. 1989, p. 563.
- [160] E. Baron. “Type II supernovae: How do they explode?” In: *Intersections between Particle and Nuclear Physics*. Ed. by Gerry M. Bunce. Vol. 176. American Institute of Physics Conference Series. Nov. 1988, pp. 976–981. doi: [10.1063/1.37647](https://doi.org/10.1063/1.37647).
- [161] S. Kahana, J. Cooperstein, and E. Baron. “Successful Supernovae, the Anatomy of Shocks: Neutrino Emission and the Adiabatic Index”. In: *Problems of Collapse and Numerical Relativity*. Ed. by D. Bancel and M. Signore. Vol. 134. NATO Advanced Study Institute (ASI) Series C. Jan. 1984, p. 163.
- [162] S. Kahana, E. Baron, and J. Cooperstein. *Type II successful supernovae, the anatomy of shocks: Neutrino emission and the adiabatic index*. Presented at the Workshop on Stellar Collapse, Toulouse, 7-11 Nov. 1983. Jan. 1983.
- [163] E. A. Baron, A. Burrows, J. M. Lattimer, and A. Yahil. ““Hydrostatic” Models of Shock Propagation in Type II Supernovae”. In: *Bulletin of the American Astronomical Society*. Vol. 14. Sept. 1982, p. 936.