

# List of Publications

**Michael H. Montgomery**

## Refereed Papers

- “SDSS J142625.71+575218.3: A Prototype for a New Class of Variable White Dwarf,”* **Montgomery, M. H.**, Williams, K. A., Winget, D. E., Dufour, P., DeGennaro, S., & Liebert, J., 2008, *ApJ*, 678, L51
- “Strong Limits on the DFSZ Axion Mass with G117-B15A,”* Bischoff-Kim, A., **Montgomery, M. H.**, & Winget, D. E., 2008, *ApJ*, 675, 1512
- “Fine Grid Asteroseismology of G117-B15A and R548,”* Bischoff-Kim, A., **Montgomery, M. H.**, & Winget, D. E., 2008, *ApJ*, 675, 1505
- “What We Can Learn from the Light Curves of GD 358 and PG 1351+489,”* **Montgomery, M. H.**, 2008, *Communications in Asteroseismology*, 154, 38
- “Whole Earth Telescope observations of the hot helium atmosphere pulsating white dwarf EC20058-5234,”* Sullivan, D. J., Metcalfe, T. S., O’Donoghue, D., Winget, D. E., Kilkenny, D., van Wyk, F., Kanaan, A., Kepler, S. O., Nitta, A., Kawaler, S. D., **Montgomery, M. H.**, Nather, R. E., O’Brien, M. S., Bischoff-Kim, A., Wood, M., Jiang, X. J., Leibowitz, E. M., Ibbetson, P., Zola, S., Krzesinski, J., Pajdosz, G., Vauclair, G., Dolez, N., & Chevreton, M., 2008, *MNRAS*, 387, 137
- “The pulsation modes of the pre-white dwarf PG 1159-035,”* Costa, J. E. S., Kepler, S. O., Winget, D. E., O’Brien, M. S., Kawaler, S. D., Costa, A. F. M., Giovannini, O., Kanaan, A., Mukadam, A. S., Mullally, F., Nitta, A., Provençal, J. L., Shipman, H., Wood, M. A., Ahrens, T. J., Grauer, A., Kilic, M., Bradley, P. A., Sekiguchi, K., Crowe, R., Jiang, X. J., Sullivan, D., Sullivan, T., Rosen, R., Clemens, J. C., Janulis, R., O’Donoghue, D., Ogloza, W., Baran, A., Silvotti, R., Marinoni, S., Vauclair, G., Dolez, N., Chevreton, M., Dreizler, S., Schuh, S., Deetjen, J., Nagel, T., Solheim, J.-E., Gonzalez Perez, J. M., Ulla, A., Barstow, M., Burleigh, M., Good, S., Metcalfe, T. S., Kim, S.-L., Lee, H., Sergeev, A., Akan, M. C., Çakırlı, Ö., Paparo, M., Viraghalmy, G., Ashoka, B. N., Handler, G., Hürkal, Ö., Johannessen, F., Kleinman, S. J., Kalytis, R., Krzesinski, J., Klumpe, E., Larrison, J., Lawrence, T., Meištas, E., Martinez, P., Nather, R. E., Fu, J.-N., Pakštienė, E., Rosen, R., Romero-Colmenero, E., Riddle, R., Seetha, S., Silvestri, N. M., Vučković, M., Warner, B., Zola, S., Althaus, L. G., Córscico, A. H., & **Montgomery, M. H.**, 2008, *A&A*, 477, 627
- “Mapping Convection using Pulsating White Dwarf Stars,”* **Montgomery, M. H.**, 2007, *Communications in Asteroseismology*, 150, 253
- “Ensemble Characteristics of the ZZ Ceti Stars,”* Mukadam, A. S., **Montgomery, M. H.**, Winget, D. E., Kepler, S. O., & Clemens, J. C., 2006, *ApJ*, 640, 956
- “A New Technique for Probing Convection in Pulsating White Dwarf Stars,”* **Montgomery, M. H.**, 2005, *ApJ*, 633, 1142
- “DQ Herculis in Profile: Whole Earth Telescope Observations and Smoothed Particle Hydrodynamics Simulations of an Edge-on Cataclysmic Variable System,”* Wood, M. A., Robertson, J. R., Simpson, J. C., Kawaler, S. D., O’Brien, M. S., Nather, R. E., Winget, D. E., **Montgomery, M. H.**, Metcalfe, T. S., Jiang, X. J., Leibowitz, E. M., Ibbetson, P., O’Donoghue, D., Zola, S., Krzesiński, J., Pajdosz, G., Vauclair, G., Dolez, N., Chevreton, M., Sullivan, D. J., Kanaan, A., & Nitta, A., 2005, *ApJ*, 634, 570

- “Atmospheric Oscillations in White Dwarfs: A New Indicator of Chromospheric Activity,”* Musielak, Z. E., Winget, D. E., & **Montgomery, M. H.**, 2005, ApJ, 630, 506
- “Binaries discovered by the SPY project. IV. Five single-lined DA double white dwarfs,”* Nelemans, G., Napiwotzki, R., Karl, C., Marsh, T. R., Voss, B., Roelofs, G., Izzard, R. G., **Montgomery, M. H.**, Reerink, T., Christlieb, N., & Reimers, D., 2005, A&A, 440, 1087
- “Whole Earth Telescope observations of BPM 37093: A seismological test of crystallization theory in white dwarfs,”* Kanaan, A., Nitta, A., Winget, D. E., Kepler, S. O., **Montgomery, M. H.**, Metcalfe, T. S., Oliveira, H., Fraga, L., da Costa, A. F. M., Costa, J. E. S., Castanheira, B. G., Giovannini, O., Nather, R. E., Mukadam, A., Kawaler, S. D., O’Brien, M. S., Reed, M. D., Kleinman, S. J., Provencal, J. L., Watson, T. K., Kilkenny, D., Sullivan, D. J., Sullivan, T., Shobbrook, B., Jiang, X. J., Ashoka, B. N., Seetha, S., Leibowitz, E., Ibbetson, P., Mendelson, H., Meišt̃as, E. G., Kalytis, R., Ališauskas, D., O’Donoghue, D., Buckley, D., Martinez, P., van Wyk, F., Stobie, R., Marang, F., van Zyl, L., Ogloza, W., Krzesiński, J., Zoła, S., Moskalik, P., Breger, M., Stankov, A., Silvotti, R., Piccioni, A., Vauclair, G., Dolez, N., Chevreton, M., Deetjen, J., Dreizler, S., Schuh, S., Gonzalez Perez, J. M., Østensen, R., Ulla, A., Manteiga, M., Suarez, O., Burleigh, M. R., & Barstow, M. A., 2005, A&A, 432, 219
- “New evolutionary models for massive ZZ Ceti stars. II. The effects of crystallization on their pulsational properties,”* Córscico, A. H., Althaus, L. G., **Montgomery, M. H.**, García-Berro, E., & Isern, J., 2005, A&A, 429, 277
- “Redefining the Empirical ZZ Ceti Instability Strip,”* Mukadam, A. S., Winget, D. E., von Hippel, T., **Montgomery, M. H.**, Kepler, S. O., & Costa, A. F. M., 2004, ApJ, 612, 1052
- “Testing White Dwarf Crystallization Theory with Asteroseismology of the Massive Pulsating DA Star BPM 37093,”* Metcalfe, T. S., **Montgomery, M. H.**, & Kanaan, A., 2004, ApJ, 605, L133
- “White Dwarf Envelopes: Further Results of a Non-local Model of Convection,”* **Montgomery, M. H.** & Kupka, F., 2004, MNRAS, 350, 267
- “A Strong Test of Electroweak Theory Using Pulsating DB White Dwarf Stars as Plasmon Neutrino Detectors,”* Winget, D. E., Sullivan, D. J., Metcalfe, T. S., Kawaler, S. D., & **Montgomery, M. H.**, 2004, ApJ, 602, L109
- “Observations of the Pulsating White Dwarf G 185-32,”* Castanheira, B. G., Kepler, S. O., Moskalik, P., Zoła, S., Pajdosz, G., Krzesiński, J., O’Donoghue, D., Katz, M., Buckley, D., Vauclair, G., Dolez, N., Chevreton, M., Barstow, M. A., Kanaan, A., Giovannini, O., Provencal, J., Kawaler, S. D., Clemens, J. C., Nather, R. E., Winget, D. E., Watson, T. K., Yanagida, K., Dixon, J. S., Hansen, C. J., Bradley, P. A., Wood, M. A., Sullivan, D. J., Kleinman, S. J., Meistas, E., Solheim, J.-E., Bruvold, A., Leibowitz, E., Mazeh, T., Koester, D., & **Montgomery, M. H.**, 2004, A&A, 413, 623
- “The core/envelope symmetry in pulsating stars,”* **Montgomery, M. H.**, Metcalfe, T. S., & Winget, D. E., 2003, MNRAS, 344, 657
- “Probing the core and envelope structure of DBV white dwarfs,”* Metcalfe, T. S., **Montgomery, M. H.**, & Kawaler, S. D., 2003, MNRAS, 344, L88
- “New evolutionary models for massive ZZ Ceti stars. I. First results for their pulsational properties,”* Althaus, L. G., Serenelli, A. M., Córscico, A. H., & **Montgomery, M. H.**, 2003, A&A, 404, 593
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*“The Effect of  $^3\text{He}$  Diffusion on the Pulsational Spectra of DBV Models,”* **Montgomery, M. H.**, Metcalfe, T. S., & Winget, D. E., 2001, ApJ, 548, L53

*“Normal modes and discovery of high-order cross-frequencies in the DBV white dwarf GD 358,”* Vuille, F., O’Donoghue, D., Buckley, D. A. H., Massacand, C.-M., Solheim, J.-E., Bard, S., Vauclair, G., Giovannini, O., Kepler, S. O., Kanaan, A., Provencal, J. L., Wood, M. A., Clemens, J. C., Kleinman, S. J., O’Brien, M. S., Nather, R. E., Winget, D. E., Nitta, A., Klumpe, E. W., **Montgomery, M. H.**, Watson, T. K., Bradley, P. A., Sullivan, D. J., Wu, K., Marar, T. M. K., Seetha, S., Ashoka, B. N., Mahra, H. S., Bhat, B. C., Babu, V. C., Leibowitz, E. M., Hemar, S., Ibbetson, P., Mashals, E., Meštas, E., Moskalik, P., Zola, S., Krzesiński, J., & Pajdosz, G., 2000, MNRAS, 314, 689

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*“Evolutionary Calculations of Phase Separation in Crystallizing White Dwarf Stars,”* **Montgomery, M. H.**, Klumpe, E. W., Winget, D. E., & Wood, M. A., 1999, ApJ, 525, 482

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*“Asteroseismology of a Star Cooled by Neutrino Emission: The Pulsating Pre-White Dwarf PG 0122+200,”* O’Brien, M. S., Vauclair, G., Kawaler, S. D., Watson, T. K., Winget, D. E., Nather, R. E., **Montgomery, M. H.**, Nitta, A., Kleinman, S. J., Sullivan, D. J., Jiang, X. J., Marar, T. M. K., Seetha, S., Ashoka, B. N., Bhattacharya, J., Leibowitz, E. M., Hemar, S., Ibbetson, P., Warner, B., van Zyl, L., Moskalik, P., Zola, S., Pajdosz, G., Krzesinski, J., Dolez, N., Chevreton, M., Solheim, J.-E., Thomassen, T., Kepler, S. O., Giovannini, O., Provencal, J. L., Wood, M. A., & Clemens, J. C., 1998, ApJ, 495, 458

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*“The identification of low  $\ell$  pulsation modes from line profile variations,”* **Montgomery, M. H.**, in preparation

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