## David Christopher Collins

### Professional Preparation

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| University of California, San Diego | Physics, PhD, 2009 |
| University of Cincinnati | Physics, BS, 2001 |
| University of Cincinnati | Mathematics, BA, 2001 |

### Appointments

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| Florida State University, Associate Professor | 2019-present |
| Florida State University, Assistant Professor | 2013-2019 |
| Los Alamos National Laboratory, Metropolis Postdoctoral Fellow | 2011-2013 |
| University of California San Diego, Postdoctoral Scholar | 2009-2011 |

### 5 closely related products

- "Magnetohydrodynamical Effects on Nuclear Deflagration Fronts in Type Ia Supernovae" Hristov, Boyan; Collins, David C.; Hoeflich, Peter; Weatherford, Charles A.; Diamond, Tiara R., ApJ, 2018, 858, 13
- "Observational Diagnostics of Self-Gravitating MHD Turbulence in Giant Molecular Clouds", Burkhart, B., Collins, D. DC., Lazarian, A. Astrophysical Journal, 2015, 808, 48
- "The Two States of Star Forming Clouds", Collins, D. C., Kritsuk, A., Padoan, P., Li, H., Xu, H., Ustyugov, S., Norman, M. L., Astrophysical Journal, 2012, 750, 13
- "Self-Generated Turbulence in Magnetic Reconnection", Oishi, J. S., Mac Low, M., Collins, D. C., Tamura, M. Astrophysical Journal Letters, 2015, 120
- "Cosmological AMR MHD with Enzo", Collins, D. C., Xu, H., Norman, M. L., Li, H., Li., S., Astrophysical Journal Suppliment, 2010, 186, 308

### 5 other significant products

- "Enzo: An Adaptive Mesh Refinement Code for Astrophysics", The Enzo Collaboration Bryan, G. L., Norman, M. L.l, O'Shea, B. W., Abel, T., Wise, J. H., Turk, M. J., Reynolds, D. R., Collins, D. C., Wang, P., Skillman, S. W., Smith, B., Harkness, R. P., Bordner, J., Kim, J., Kuhlen, M., Xu, H., Goldbaum, N., Hummels, C., Kritsuk, A. G., Tasker, E., Skory, S., Simpson, C. M., Hahn, O., Oishi, J. S., So, G. C., Zhao, F., Cen, R., Li, Y. Astrophysical Journal Suppliment, 2014, 19
- "The Razor's Edge of Collapse: The Transition Point from Lognormal to Power-Law Distributions in Molecular Clouds," Burkhart, B., Stalpes, K., Collins, D. C., ApJ, 2017, 834,1
- "Local Support Against Gravity in Magnetoturbulent Fluids", Schmidt, W., Collins, D. C., Kritsuk, A. G., Monthly Notices of the Royal Astronomical Society, 2013, 43,
- "Accuracy of Core Mass Estimates in Simulated Observations of Dust Emission", Malinen, J., Juvela, M., Collins, D. C., Lunttila, T., Padoan, P., Astronomy & Astrophysics, 2011, 530, A101
- "Comparing Numerical Methods for Isothermal Magnetized Supersonic Turbulence", Kritsuk, A., Nordlund, Å, Collins, D. C., Padoan, P., Norman, M. L., Abel, T., Banerjee, R., Federrath, C., Flock, M., Lee, D., Li, P. S., Müller, W.-C., Teyssier, R., Ustyugov, S. D., Vogel, C., Xu, H. Astrophysical Journal, 2011, 737, 13

**Synergistic Activities**

Development of MHD modules for Enzo

Development and maintenance of Enzo infrastructure (2003-present)

Community support of new and existing users for `yt` and Enzo (2003-present)

Tallahassee's *Ask A Scientist* connecting current science with the public

Saturday Morning Physics, bringing physics to middle- and high-school students (2013-present)