

David Christopher Collins

Professional Preparation

University of California, San Diego

Physics, PhD, 2009

University of Cincinnati

Physics, BS, 2001

University of Cincinnati

Mathematics, BA, 2001

Appointments

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.; Hoefflich, 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. C., 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 Supplement, 2010, 186, 308

5 other significant products

- “Enzo: An Adaptive Mesh Refinement Code for Astrophysics”, The Enzo Collaboration
Bryan, G. L., Norman, M. 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 Supplement, 2014, 19
- “The Razor’s Edge of Collapse: The Transition Point from Lognormal to Power-Law Distri-
butions 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