

Refereed

1. *The Fate of High Velocity Clouds: Warm or Cold Cosmic Rain?*
Heitsch, F., Putman, M.E. 2009, ApJ, 698, 1485
2. *Spitzer View of Young Massive Stars in the LMC HII Complex N 44*
Chen, C.-H.R., Chu, Y.-H., Gruendl, R., Gordon, K.D., **Heitsch, F.** 2009, ApJ, 695, 511
3. *Effects of Magnetic Field Strength and Orientation on Molecular Cloud Formation*
Heitsch, F., Stone, J.M., Hartmann, L.W. 2009, ApJ, 695, 248
4. *Driving Turbulence and Triggering Star Formation by Ionizing Radiation*
Gritschneder, M., Naab, T., Walch, S., Burkert, A., **Heitsch, F.** 2009, ApJL, 694, 26
5. *iVINE - Ionization in the parallel tree/SPH code VINE: First results on the observed age-spread around O-stars*
Gritschneder, M., Naab, T., Burkert, A., Walch, S., **Heitsch, F.**, Wetzstein, M. 2009, MNRAS, 393, 21
6. *Rapid Molecular Cloud and Star Formation: Mechanisms and Movies*
Heitsch, F., Hartmann, L.W. 2008, ApJ, 689, 290
7. *Fast Dynamos in Weakly Ionized Gases*
Zweibel, E.G., **Heitsch, F.** 2008, ApJ, 684, 373
8. *Fragmentation of Shocked Flows: Gravity, Turbulence and Cooling*
Heitsch, F., Hartmann, L.W., Burkert, A. 2008, ApJ, 683, 786
9. *Evolution of Unmagnetized and Magnetized Shear Layers*
Palotti, M., **Heitsch, F.**, Zweibel, E.G., Huang, Y.-M. 2008, ApJ, 678, 234
10. *Cooling, Gravity and Geometry: Flow-Driven Massive Core Formation*
Heitsch, F., Hartmann, L.W., Slyz, A.D., Devriendt, J.E.G., Burkert, A. 2008, ApJ, 674, 316
11. *Magnetized Nonlinear Thin-Shell Instability: Numerical Studies in Two Dimensions*
Heitsch, F., Slyz, A.D., Devriendt, J.E.G., Hartmann, L.W., Burkert, A. 2007, ApJ, 665, 445
12. *The Frequency of Mid-Infrared Excess Sources in Galactic Surveys*
Uzpen, B., Kobulnicky, H.A., Monson, A.J. et al. (+ **Heitsch, F.** and 26 co-authors) 2007, ApJ, 658, 1264
13. *Structure Generation by Irradiation: What can GLIMPSE teach us about the ISM structure?*
Heitsch, F., Whitney, B.A., Indebetouw, R. et al. (+ 3 co-authors) 2007, ApJ, 656, 227
14. *Cloud Dispersal in Turbulent Flows*
Heitsch, F., Slyz, A.D., Devriendt, J.E.G., Burkert, A. 2006, MNRAS, 373, 1379

15. *Thermal Instability in a Weakly Ionized Plasma*
Stiele, H., Lesch, H., **Heitsch, F.** 2006, MNRAS, 372, 862
16. *The Birth of Molecular Clouds: Formation of Atomic Precursors in Colliding Flows*
Heitsch, F., Slyz, A.D., Devriendt, J.E.G., Hartmann, L.W., Burkert, A. 2006, ApJ, 648, 1052
17. *The Formation of Turbulent Molecular Clouds: A Modeler's View*
Heitsch, F. 2006, Reviews in Modern Astronomy, 19, 157
18. *Formation of Structure in Molecular Clouds: A Case Study*
Heitsch, F., Burkert, A., Hartmann, L., Slyz, A.D., Devriendt, J.E.G. 2005, ApJL, 633, 113
19. *Identification of Main-Sequence Stars with Mid-Infrared Excess Using GLIMPSE: β Pictoris Analogs?*
Uzpen, B., Koblunicky, H.A., Olsen, K.A.G. et al. (+ **Heitsch, F.** and 22 co-authors) 2005, ApJ, 629, 512
20. *RCW 49 at Mid-Infrared Wavelengths: A GLIMPSE from the Spitzer Space Telescope*
Churchwell, E., Whitney, B.A., Babler, B.L. et al. (+ **Heitsch, F.** and 17 co-authors) 2004, ApJS, 154, 322
21. *A GLIMPSE of Star Formation in the Giant HII Region RCW 49*
Whitney, B.A., Indebetouw, R., Babler, B.L. et al. (+ **Heitsch, F.** and 17 co-authors) 2004, ApJS, 154, 315
22. *Dust Heating by the Interstellar Radiation Field in Models of Turbulent Molecular Clouds*
Bethell, T., Zweibel, E.G., **Heitsch, F.**, Mathis, J.S. 2004, ApJ, 610, 801
23. *Magnetic Flux Transport in the ISM Through Turbulent Ambipolar Diffusion*
Heitsch, F., Zweibel, E.G., Slyz, A. D., Devriendt, J.E.G. 2004, ApSS, 292, 45
24. *Canals beyond Mars. Beam Depolarization in Radio Continuum Maps of the Warm ISM*
Haverkorn, M., **Heitsch, F.** 2004, A&A, 421, 1011
25. *Kelvin-Helmholtz-Instability in a Weakly Ionized Medium*
Watson, C., Zweibel, E.G., **Heitsch, F.**, Churchwell, E. 2004, ApJ, 608, 274
26. *The Formation of Protostellar Cores out of a Turbulent Cloud*
Li, P.S., Norman, M.L., Mac Low, M.-M., **Heitsch, F.** 2004, ApJ, 605, 800
27. *Turbulent Ambipolar Diffusion: Numerical Studies in 2D*
Heitsch, F., Zweibel, E.G., Slyz, A.D., Devriendt, J.E.G. 2004, ApJ, 603, 165
28. *Suppression of Fast Reconnection by Magnetic Shear*
Heitsch, F., Zweibel, E.G. 2003, ApJ 590, 291

29. *Fast Reconnection in a Two-Stage Process*
Heitsch, F., Zweibel, E.G. 2003, ApJ, 583, 229
30. *Numerical Simulations of Magnetic Fields in Astrophysical Turbulence*
Zweibel, E.G., **Heitsch, F.**, Fan, Y. 2003, Lecture Notes in Physics, 614, 101
31. *On the Structure of Self-gravitating Molecular Clouds*
Ossenkopf, V., Klessen, R.S., **Heitsch, F.** 2001, A&A, 379, 1005
32. *Magnetic Field Diagnostics Based on Far-Infrared Polarimetry: Numerical Simulations*
Heitsch, F., Zweibel, E.G., Mac Low, M.-M., Li, P.S., Norman, M.L. 2001, ApJ, 561, 800
33. *Gravitational Collapse in Turbulent Molecular Clouds II. MHD Turbulence*
Heitsch, F., Mac Low, M.-M., Klessen, R.S. 2001, ApJ, 547, 280
34. *The distribution of shock waves in driven supersonic turbulence*
Smith, M.D., Mac Low, M.-M., **Heitsch, F.** 2000, A&A, 362, 333
35. *Gravitational Collapse in Turbulent Molecular Clouds I. Gasdynamical Turbulence*
Klessen, R.S., **Heitsch, F.**, Mac Low, M.-M. 2000, ApJ, 535, 887
36. *The Metal-rich Globular Clusters of the Milky Way*
Heitsch, F., Richtler, T. 1999, A&A, 347, 455

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37. *Numerical Star Formation Studies – A Status Report*
Klessen, R.S., Krumholz, M.R., **Heitsch, F.**, Advanced Science Letters
38. *Faraday Tomography of an MHD-simulated Volume of Galactic ISM*
Schnitzeler, D.H.F.M., **Heitsch, F.**, Katgert, P., Haverkorn, M., A&A

Selected Conference Proceedings

39. *Flow-Driven Formation of Massive Cores: Rapid & Efficient?*
Heitsch, F., Hartmann, L. 2008
in “Massive Star Formation: Observations Confront Theory”
eds: H. Beuther, H. Linz, & T. Henning; ASP Conference Series 387, 15
40. *Determining the Magnetic Field Strength From Polarimetry of Dense Molecular Cloud Cores: Theoretical Considerations*
Heitsch, F. 2005
in “Astronomical Polarimetry: Current Status and Future Directions”
eds: A. Adamson, C. Aspin, C. Davis, & T. Fujiyoshi; ASP Conference Series 343, 166
41. *Flux Transport in the ISM through Turbulent Ambipolar Diffusion*
Heitsch, F. Zweibel, E.G., Slyz, A.D., Devriendt, J.E.G. 2004
in “Magnetic Fields and Star Formation: Theory versus Observations”,
eds: A.I. Gómez de Castro, Kluwer Academic Press
42. *Alfvén-wave Driven Turbulence in Molecular Clouds*
Heitsch, F., Burkert, A. 2002
in “Modes of Star Formation and the Origin of Field Populations”,
eds. E. K. Grebel & W. Brandner; ASP Conference Series 285, 13
43. *Can Magnetized Turbulence Support Molecular Clouds?*
Heitsch, F., M.-M. Mac Low, Klessen, R. 2000
in “Proceedings of the 33rd ESLAB Symposium,
Star Formation from the Small to the Large Scale”,
ESTEC, Noordwijk, NL (ESA SP-445, Juni 2000); 391
44. *Effects of Magnetized Turbulence on the Structure and Dynamical Evolution of Molecular Clouds*
Heitsch, F., Mac Low, M.-M., Klessen, R. 1999
in “Plasma Turbulence and Energetic Particles” eds. Ostrowski, M. & Schlickeiser, R.,
Uniwersytet Jagiellonski, Kraków, 1999; 103

Invited Talks

1. *Setting the Star Formation Efficiency: Lessons from Detailed Numerical Simulations*
at *The SFR50*, Abbazia di Spineto, Italy; 07/07/2009
2. *The Making Molecular Clouds: The Role of Magnetohydrodynamical and Thermal Instabilities*
at *Turbulence and Hydrodynamical Instabilities*, Garching, Germany; 11/19/2008
3. *Rapid Star Formation in Colliding Flows: the Molecular Perspective*
at *HI Survival through Cosmic Times*, Abbazia di Spineto, Italy; 06/14/2007
4. *Magnetohydrodynamic Boltzmann Solvers*
at *Structure Formation in the Universe: Galaxies, Stars Planets*, Chamonix, France; 05/29/2007
5. *Formation of Small Scale Structure in Large Scale Flows in the ISM*
at *Microstructures in the Interstellar Medium*, Lake Geneva, WI; 04/24/2007
6. *Turbulence Generation in Filamentary Molecular Clouds: a modeler's view*
at *Annual Conference of the Astronomische Gesellschaft*, Cologne, Germany; 09/30/2005

Colloquia

Herzberg Institute of Astrophysics, Victoria (04/28/2009);
U Michigan (03/19/2009);
UNC Chapel Hill (03/16/2009);
U Oakland (02/19/2009);
Columbia U (02/04/2009);
U Arizona-Tucson/Steward Observatory (03/06/2008);
U Wyoming, Laramie (11/27/2007);
U Florida, Gainesville (10/10/2007);
UNAM Morelia (12/14/2006);
U Toledo (12/07/2006);
U Iowa (12/04/2006);
U Colorado-Boulder (11/29/2006);
U Michigan, Ann Arbor (11/09/2006);
U Illinois, Urbana-Champaign (10/24/2006);
USM Munich (05/31/2006);
U Tübingen (05/29/2006);
MPIfR Bonn (10/14/2005);
U Wisconsin-Madison (09/06/2005);
U Basel (06/21/2005);
AIP Potsdam (11/11/2004);
U Wisconsin-Madison (09/16/2003);
MPIA Heidelberg (01/28/2000, 06/01/2001);

Selected Seminars

U Oxford (05/31/2008);
U Princeton (09/24/2007);
Northwestern, Evanston/IL (01/22/2008);
U Virginia-Charlottesville (05/15/2007);
U Iowa (12/05/2006);
U Chicago (04/07/2004);
ENS Lyon (11/18/2003);
U Chicago (04/08/2003);
U Colorado-Boulder (11/21/2002);
AMNH, New York (08/19/2002);
MPIA Heidelberg (06/10/2002);
U Oxford (06/03/2002);
U Colorado-Boulder (10/26/2001)
U Illinois, Urbana-Champaign (04/24/2000);