Sean P. Matt

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EDUCATION

Ph.D. in Astronomy, University of Washington, 2002 (advisor, Robert Winglee) **M.S. in Astronomy**, University of Washington, 1998 **B.S. in Physics & Astronomy**, Cum Laude, University of Arizona, 1996

PROFESSIONAL APPOINTMENTS

2023-present: Professor of Physics & Astronomy, Homer L Dodge Chair in Astrophysics, University of Oklahoma

2023 Jan-Jun: Sabbatical Visiting Researcher, Simons Foundation Flatiron Institute CCA

2022 Aug-Dec: visiting researcher, University of Washington

2016-2023: Associate Professor of Astrophysics, U of Exeter, Dept of Physics & Astronomy

2013-2016: Senior Lecturer, University of Exeter, Department of Physics & Astronomy

2009-present: Research Affiliate, Space Science Institute, Boulder, Colorado

2010-2013: Senior Postdoc, CEA Saclay, France

2010 (spring): Instructor of Stellar Structure and Evolution at U. of Washington

2008-2010: NASA Postdoctoral Program (Prize) Senior Fellow at Ames Research Center

2005-2008: Levinson/VITA (Prize) Postdoctoral Fellow at the University of Virginia

2004-2005: **Postdoctoral Research Associate** with Ralph Pudritz at McMaster University

2004 (autumn): **Instructor** of physics at McMaster University

2002-2004: CITA National (Prize) Postdoctoral Fellow at McMaster University

1998-2002: Research Assistant for Ph.D. thesis work at the U. of Washington

1998-1999: Research Assistant with George Wallerstein at the U. of Washington

1997-1999: **Teaching Assistant** at U. of Washington

1997: Large Telescope Optics Shop Employee, Rayleigh Optical Corp. (ROC), Tucson AZ

1996: NSF/REU Summer Research Asst. with George Simon at National Solar Observatory

1995: NSF/REU Summer Research Asst. with Donald Neidig at National Solar Observatory

RESEARCH AREAS

<u>Subjects:</u> Stellar astrophysics, star formation and evolution, star-disk/star-planet interactions, stellar winds, ang. momentum, accretion, convection, mag. field generation, jets and nebulae formation.

<u>Tools:</u> Hydrodynamics and magnetohydrodynamical theory, modeling, and computation, high performance computing, observational data analysis and interpretation.

RESEARCH GRANTS/FUNDING (~\$5M total, ~\$3M as PI)

- 2024-25: PI (faculty advisor) on **First Nations Launch Competition**, NASA / Wisconsin Space Grant Consortium; \$5,000
- 2023 (Jan-Jun): PI on 2022 **Sabbatical Visiting Research Program Placement**, Simons Foundation, Flatiron Institute, Center for Computational Astrophysics, NYC, New York; US <u>\$88,000</u>
- 2021-2024: PI of 2020 STFC AGP Consolidated Grant (with 6 Co-Is);
 - "Astrophysics at the University of Exeter"; £1,651,382 (PI share £17,000)
- 2017-2019: Co-PI (with S. Brun) **International Space Science Institute International Team**; "The Solar and Stellar Wind Connection"; funding and venue for 2 1-week meetings; €30,000
- 2017 summer: PI on Summer Research Student Funding, EPSRC;
 - 10-week bursary for undergraduate student summer research; £3000
- 2016: Co-I on **K2 Guest Observer Cycle 4 time and funding** (PI A. Scholz; 15-K2GO4_2-0010); "Rotation of M dwarfs: spindown, activity, and gyrochronology"; US \$40,000
- 2016-22: PI on ERC Consolidator Grant 2015 AWESoMeStars;
 - "Accretion Winds and Evolution of Spin and Magnetism of Stars"; €2,206,205
- 2016-21: PI on **2 PhD Studentships**, internally funded (College EMPS) as part of ERC Grant AWESoMeStars; £160,000
- 2016-17: Cost-PI (via SSI), science Co-I on NASA/Chandra Cycle 17 observing proposal #17200112 (PI B. Stelzer); "The Rotation/Activity Relation of M Dwarfs"; <u>US \$33,026</u>
- 2015 summer: Host of **Summer UG Research Student**, funded by Haverford College KINSC; US \$5000
- 2015 summer: PI on **Summer Research Student Funding**, internally funded (DARO/Santander), U. of Exeter, awarded for research mentorship of Brazilian MSc student; £5,000
- 2014-18: PI on **PhD Studentship**, internally funded (College EMPS), U. of Exeter; £80,000
- 2012-16: Team member of CEA partner (Co-I S. Brun) of **ANR (French) project TOUPIES Blanc SIMI5-6 02001** (PI J. Bouvier), Shared IPAG, CEA AIM, IRAP, LUPM; "TOwards Understanding the sPIn Evolution of Stars"; €615,272
- 2010-12: Co-I on NASA/Chandra Cycle 11 theory grant #11200687 (PI Z.-Y. Li), UVA; "Inferring the Launch Conditions of the DG Tau Jet from Chandra Obs."; US \$57,997
- 2008-11: Co-I on **NSF AST 0808072** (PI K. Stassun), Vanderbilt U.; "Angular Momentum Evolution and X-ray Production in Low-Mass Pre-Main-Sequence Stars"; US \$289,810
- 2008-10: PI on NASA Postdoctoral Program Senior Fellowship, NASA Ames; US \$140,000
- 2005-08: PI on Levinson/VITA Postdoctoral Fellowship, U. of Virginia; US \$190,000
- 2002-04: PI on CITA Postdoctoral Fellowship, McMaster U.; CAD \$95,000
- 2000 summer: PI on **High Performance Computing 3-week Summer School**, NASA Goddard Space Flight Center; <u>US \$2,000</u>
- 1995 & 1996 summer: PI on two separate **NSF/REU Summer Research Bursary and Travel**, National Solar Observatory, NM; <u>US 2x\$4,000</u>

RESEARCH SUPERVISION

- 10 postdoctoral researchers supervised (3 current), +2 co-supervised.
- **8 PhD students** supervised (4 current), +2 co-supervised.
- 15 masters students supervised, +1 co-supervised.
- **26 undergraduate (and other) student researchers** supervised, +2 co-supervised.

TEACHING

Instructor for Computational Physics & Astrophysics (ASTR 5900), U Oklahoma (2023/24) Instructor for Stars (ASTR 3103), U Oklahoma (2023/24, 2024/25)

Module Leader & Instructor for Stage 1 Intro to Astrophysics (PHY1022), Exeter (2015/16, 16/17); commendation from DVC-Education for excellent student feedback/rating (2016 & 2017); commendation from college and "recognition of excellence and above and beyond" (2017) Instructor for Stage 2 Lab Physics (Astro) (PHY2026) at Exeter (2014/15, 15/16, 19/20 – 21/22) MPhys (Integrated Masters) projects at Exeter (14 students; 2017 – 2022) Personal Tutor in Stage 1 Physics at Exeter (2013/14 5 students, 14/15 14, 15/16 15) Instructor of grad. course Stellar Structure and Evolution (ASTR 531) at U. Washington (2010) Instructor of first year physics (PHYSICS 1B03) at McMaster U. (2004)

Teaching **Assistant for introductory astronomy** (7 courses) at U. of Washington (1997-1999) Private **Math & Physics Tutor** (~150 hr.; 1997)

MEETING ORGANIZATION

- SOC Member and session chair for SPIDI Inner Disk meeting, Corsica, France 2023
- **SOC Member** for *Cool Stars 21*, Toulouse, France, 2022
- **SOC Member** for *Cool Stars 20.5*, virtual meeting, 2021
- Session Chair in meeting 16th Potsdam Thinkshop on Rotation, Potsdam, Germany, 2019
- Organizer (Chair of SOC), for BCool Collaboration Meeting #8, Exeter, UK, 2019
- Co-organizer for two ISSI meetings on Solar/Stellar Winds, Bern, Switzerland, 2018 & 2019
- Co-organizer for workshop on Stellar Magnetism & Spin, Bellingham, Washington, 2017
- **Organizing committee member** and discussion **panel chair** for meeting on *Transport Processes* and *Accretion in YSOs*, Ringberg Germany, 2011

CONTRIBUTIONS TO THE COMMUNITY

- Given ~90 talks and contributions to conferences, meetings, workshops, public lectures, and department colloquia in 4 continents, 15 countries, and 16 US states
- Co-organized (w S Brun) an **International Space Science Institute International Team**, comprised of 12 senior experts from 6 different countries (awarded funding for 2 1-week meetings at ISSI over 2 year period 2018-2019): https://www.issibern.ch/teams/solwindconnect/
- Panel member for STFC Astronomy Grants Panel, theory sub-panel (UK, 2017)
- TAC panel member for NASA Chandra Guest Observer (USA, 2015)
- Panel member for NASA Astrophysics Theory Program Grants (USA, 2012)
- Panel member for NSF Astronomy & Astrophysics Research Grants (USA, 2009)
- TAC panel member for NASA HST Cycle 17 Guest Observer (USA, 2008)
- External reviewer (grants) for STFC Ernest Rutherford Fellowship (UK), STFC AGP (UK), STFC Rutherford Fellowship grant (UK), Royal Society (UK) 150k research grants, CONICYT (Chile) research grants, ANR (France), FWO Fellowship (Belgium), ISF (Israel)
- Journal referee for ApJ, ApJ Letters, A&A, AJ, MNRAS, PASP
- Thesis examiner: 2 PhDs & 2 MSc as external examiner (UK, France, India, Colombia), 5 PhDs as internal (Exeter),
- Member of working group (wrote white paper) on Opportunities in Plasma Astrophysics, 2010
- Helped **polish primary mirrors** for the 2-Micron All Sky Survey (2MASS), and solely responsible for polishing 2.4m aluminum mirror used to test the MMT secondary mirror (while at ROC), 1997

PUBLICATIONS

As of February, 2025: 92 total, 23 first author publications

Citations: 4054 total, 1788 to 1^{st} author papers; h-index = 34 (17 for 1^{st} author papers only)

Color code: postdoc, PhD student, undergraduate student, under my supervision

Refereed Papers: 68 total, 16 first author

- [68] Lu, L (Y), See V, Amard, L, Angus, R, Matt, S P 2024, Nature Astronomy, 8, 223

 An abrupt change in the stellar spin-down law at the fully convective boundary
- [67] Douglas, S T, Cargile, P A, **Matt, S P**, Breimann, A A, Pérez Chávez, J A, Huang, C X, Wright, N Zhou, G 2024, ApJ, 962, 16; *Constraining Stellar Rot. at the Zero-Age Main Sequence with TESS*
 - [66] See, V, Roquette, J, Amard, L, **Matt, S** 2023, MNRAS, 524, 5781

 Further evidence of the link between activity and metals using the flaring of stars in the Kepler field [65] Amard, L, **Matt, S P** 2023, A&A, 678, A7

Effects of accretion on the structure and rotation of forming stars

- [64] Wilson, T J G, **Matt, S P**, Harries, T J, Herczeg, G J 2022, MNRAS, 514, 2162 *Hydrogen from accretion and outflow in T Tauri stars*
- [63] Ireland, L G, Matt, S P, Zanni, C 2022, ApJ, 929, 65; Magnetic Braking of Accreting T Tauri Stars: Torque Formulation Spanning Spin-up and Spin-Down Regimes
- [62] Macneil, A R, Owens, M J, Finley, A J, Matt, S P 2022, MNRAS, 509, 2390

 A stat'l eval. of ballistic backmapping for the slow solar wind: interplay of wind accel. & corotation
- [61] Ireland, L G, Matt, S P, Davey, C R, Harris, O L, Slade-Harajda, T W, Finley, A J, Zanni, C 2022, ApJ, 925, 100; Effect of Diff. Rot. on Mag. Braking of Stars: A Proof-of-Concept Study
- [60] Roquette, J, Matt, S P, Winter, A J, Amard, L, Stasevic, S 2021, MNRAS, 508, 3710

 Influence of the environ. on the spin evol. of low-mass stars I: External photoevaporation of discs
- [59] Macneil, A R, Owens, M J, Finley, A J, Matt, S P 2022, MNRAS, 509, 2390; A statistical eval. of ballistic backmapping for the slow solar wind: The interplay of solar wind accel. and corotation
- [58] Breimann, A A, **Matt, S P**, Naylor, T 2021, ApJ, 913, 75

 Statistical Fitting of Evolutionary Models to Rotation Rates of Sun-Like Stars
- [57] See, V, Roquette, J, Amard, L, **Matt, S P** 2021, ApJ, 912, 127

 Photometric Variability as a Proxy for Magnetic Activity and Its Dependence on Metallicity
- [56] Finley, A J, McManus, M D, Matt, S P, et al. 2021, A&A, 650, 17; The Contribution of Alpha Particles to the Solar Wind Angular Momentum Flux in the Inner Heliosphere
- [55] Ireland, L G, Zanni, C, Matt, S P, Pantolmos, G 2021, ApJ, 906, 4; Magnetic Braking of Accreting T Tauri Stars: Effects of Mass Accretion Rate, Rotation, & Dipolar Field Strength
- [54] Amard, L, Roquette, J, Matt, S P. 2020, MNRAS, 499, 3481 Evidence for metallicity-dependent spin evolution in the Kepler field
- [53] Curtis, J L, Agüeros, M A, Matt, S P, et al. 2020, ApJ, 904, 140; When Do Stalled Stars Resume Spinning Down? Advancing Gyrochronology with Ruprecht 147
- [52] Finley, A J, **Matt, S P**, Réville, V, et al. 2020, ApJL, 902, 4

 The Solar Wind Angular Momentum Flux as Observed by Parker Solar Probe
- [51] Shoda, M, Suzuki, T K, **Matt, S P**, et al. 2020, ApJ, 896, 123; Alfvén-wave-driven Magnetic Rotator Winds from Low-mass Stars. I. Rot. Dependences of Mag Braking and Mass-loss Rate
- [50] Magaudda, E, ..., **Matt S P**, et al. 2020, A&A, 638, 20; *Relation of X-ray activity and rotation in M dwarfs and predicted time-evolution of the X-ray luminosity*
- [49] Bastian, N, ..., Matt, S P. 2020, MNRAS, 495, 1978; On the origin of the bimodal rotational velocity distribution in stellar clusters: rotation on the pre-main sequence
- [48] See, V, Lehmann, L, Matt, SP, Finley, AJ 2020, ApJ, 894, 69; How Much Do Underestimated Field Strengths from Zeeman-Doppler Imaging Affect Spin-down Torque Estimates?
- [47] Amard, L, Matt, S P. 2020, ApJ, 889, 108

 The Impact of Metallicity on the Evolution of the Rotation & Magnetic Activity of Sun-like Stars

- [46] See, V, Matt, S P, Finley, A J, et al. 2019, ApJ, 886, 120 Do Non-dipolar Magnetic Fields Contribute to Spin-down Torques?
- [45] Finley, A J, Hewitt, A L, Matt, S P, et al. 2019, ApJ, 885, 30

 Direct Detection of Solar Angular Momentum Loss with the Wind Spacecraft
- [44] Finley, A J, Deshmukh, S, **Matt, S P**, Owens, M, Wu, C-J 2019, ApJ, 883, 67 Solar Angular Momentum Loss over the Past Several Millenia
- [43] See, V, Matt, S P, Folsom, C P, et al. 2019, ApJ, 876, 118

 Estimating Magnetic Filling Factors from Zeeman-Doppler Magnetograms
- [42] Finley, A J, See, V, Matt, S P. 2019, ApJ, 876, 44; The Effect of Variability on Stellar Angular Momentum Loss. II. The Sun, 61 Cygni A, eps. Eridani, xi Bootis A, & tau Bootis A
- [41] Finley, A J, Matt, S P, See, V. 2018, ApJ, 864, 125; The Effect of Variability on Stellar Angular Momentum Loss. I. The Solar Wind Torque during Sunspot Cycles 23 & 24
- [40] Finley, A J, Matt, S P. 2018, ApJ, 854, 78; The Effect of Combined Magnetic Geometries on Thermally Driven Winds. II. Dipolar, Quadrupolar, & Octupolar Topologies
- [39] Pantolmos, G, **Matt, S P.** 2017, ApJ, 849, 83

 Magnetic Braking of Sun-like & Low-mass Stars: Dependence on Coronal Temperature
- [38] Finley, A J, Matt, S P. 2017, ApJ, 845, 46; The Effect of Combined Magnetic Geometries on Thermally Driven Winds. I. Interaction of Dipolar and Quadrupolar Fields
- [37] Brun, A S, Strugarek, A, Varela, J, **Matt**, **S** P, et al. 2017, ApJ, 836, 192 *On Differential Rotation and Overshooting in Solar-like Stars*
- [36] Stelzer, B, Damasso M, Scholz, A, Matt, S P. 2016, MNRAS, 463, 1844; A path towards understanding the rotation-activity relation of M dwarfs with K2 Mission, X-ray, & UV data
- [35] Hussain, G. A., ..., **Matt, S. P.**, et al. 2016, A&A, 585, 77

 A Spectro-Polarimetric Study of the Planet-Hosting G Dwarf, HD 147513
- [34] Strugarek, A., Brun, A. S., Matt, S. P., Réville, V. 2015, ApJ, 815, 111

 Magnetic Games Between a Planet and Its Host Star: The Key Role of Topology
- [33] Réville, V., Brun, A. S., Strugarek, A., Matt, S. P., Bouvier, J., Folsom, C., Petit, P. 2015, ApJ, 814, 99; From Solar to Stellar Corona: The Role of Wind, Rotation, and Magnetism
- [32] Alvardo-Gòmez, J. D., ..., **Matt, S. P.**, et al. 2015, A&A, 582, 38

 Activity and Magnetic Field Structure of the Sun-Like Planet-Hosting Star HD 1237
- [31] Réville, V., Brun, A. S., **Matt, S. P.**, Strugarek, A., Pinto, R. F. 2015, ApJ, 798, 116 *Effect of Mag. Topology on Thermal Winds: Toward a General Formulation of the Breaking Law*
- [30] **Matt, S. P.**, Brun, A. S., Baraffe, I., Bouvier, J., Chabrier, G. 2015, ApJ, 799, L23 *The Mass-Dependence of Angular Momentum Evolution in Sun-Like Stars*
- [29] Strugarek, A., Brun, A. S., **Matt, S. P.**, Réville, V. 2014, ApJ, 795, 86 On the Diversity of Magnetic Interactions in Close-In Star-Planet Systems
- [28] Bouvier, J., **Matt, S. P.**, Mohanty, S., Scholz, A., Stassun, K. G., Zanni, C. 2014, in Protostars & Planets VI (eds. H. Beuther et al.), U. of Arizona Press, Tucson, p 433

 Review: Angular mom. evol. of young low-mass stars and brown dwarfs: observations and theory
- [27] Aarnio, A. N., **Matt, S. P.**, Stassun, K. G. 2013, AN, 334, 77

 Angular mom. evol. of low-mass pre-main sequence stars via extreme coronal mass ejections
- [26] Meibom, S., ..., Matt, S. P., et al. 2013, AN, 334, 168

 Angular mom. evol. of cool stars: Toward a synthesis of obs. and theory before & after the ZAMS
- [25] Aarnio, A. N., **Matt, S. P.**, Stassun, K. G. 2012, ApJ, 760, 9

 Mass Loss in PMS Stars via Coronal Mass Ejections and Implications for Angular Mom. Loss
- [24] Matsakos, T., ..., **Matt, S. P.**, et al. 2012, A&A, 545, A53 Velocity Asymmetries in YSO Jets: Intrinsic and Extrinsic Mechanisms
- [23] Bolmont, E., Raymond, S. N., Leconte, J., & Matt, S. P., 2012, A&A, 544, A124 Effect of the Stellar Spin History on the Tidal Evolution of Close-in Planets
- [22] **Matt, S. P.**, MacGregor, K. B., Pinsonneault, M. H., & Greene, T. P., 2012, ApJ, 754, L26 *Mag. Braking Formulation for Sun-Like Stars: Dep. on Dipole Field Strength and Rotation Rate*
- [21] Matt, S. P., Pinzon, G., Greene, T. P., & Pudritz, R. E. 2012, ApJ, 745, 101

- Spin Evolution of Accreting Young Stars. II. Effect of Accretion-Powered Stellar Winds
- [20] **Matt, S. P.**, Do Cao, O., Brown, B. P., & Brun, A. S. 2011, Astron. Nachr., 332, 897 *Convection and Differential Rotation Properties of G and K Stars Computed with the ASH Code*
- [19] Guenther, H. M., **Matt, S. P.**, Schmitt, J. H. M. M., Guedel, M., Li, Z.-Y., & Burton, D. M. 2010, A&A, 519, 97; *The disk-bearing young star IM Lupi. X-ray prop. & limits on accretion*
- [18] Aarnio, A. N., Stassun, K. G., & Matt, S. P. 2010, ApJ, 717, 93; A Search for Star-Disk Interaction Among the Strongest X-ray Flaring Stars in the Orion Nebular Cluster
- [17] **Matt, S. P.**, Pinzon, G., de la Reza, R., & Greene, T. P. 2010, ApJ, 714, 989 Spin Evolution of Accreting Young Stars. I. Effect of Magnetic Star-Disk Coupling
- [16] Guenther, H. M., **Matt, S. P.**, & Li, Z.-Y. 2009, A&A, 493, 579

 Revealing the Fastest Component of the DG Tau Outflow through X-rays
- [15] Gregory, S. G., Matt, S. P., Donati, J.-F., & Jardine, M. 2008, MNRAS, 389, 1839 The Non-Dipolar Magnetic Fields of Accreting T Tauri Stars
- [14] Bary, J. S., **Matt, S. P.**, Skrutskie, M., Wilson, J., Peterson, D, & Nelson, M 2008, ApJ, 687, 376 *Physical Conditions of Accreting Gas in T Tauri Star Systems*
- [13] **Matt, S.**, & Pudritz, R. E. 2008, ApJ, 681, 391

 Accretion-Powered Stellar Winds III: Spin Equilibrium Solutions
- [12] **Matt, S.**, & Pudritz, R. E. 2008, ApJ, 678, 1109

 Accretion-Powered Stellar Winds II: Numerical Solutions for Stellar Wind Torques
- [11] **Matt, S.**, Frank, A., & Blackman, E. G. 2006, ApJ Letters, 647, 45

 Astrophysical Explosions Driven by a Rotating, Magnetized, Gravitating Sphere
- [10] **Matt, S.** & Pudritz, R. E. 2005, ApJ Letters, 632, 135

 Accretion-Powered Stellar Winds as a Solution to the Stellar Angular Momentum Problem
- [9] Matt, S. & Pudritz, R. E. 2005, MNRAS, 356, 167 The Spin of Accreting Stars: Dependence on Magnetic Coupling to the Disc
- [8] Matt, S. & Balick, B. 2004, ApJ, 615, 921
 Simultaneous Production of Disk and Lobes: A Single-Wind MHD Model for the Eta Car Nebula
- [7] Matt, S. & Pudritz, R. E. 2004, ApJ Letters, 607, L43

 Does Disk Locking Solve the Stellar Angular Momentum Problem?
- [6] **Matt, S.**, Winglee, R., & Böhm, K.-H. 2003, MNRAS, 345, 660 *Collimation of a Central Wind by a Disk-Associated Magnetic Field*
- [5] **Matt, S.** & Böhm, K.-H. 2003, PASP, 115, 334 *The Enigmatic HH 255*
- [4] Matt, S., Goodson, A. P., Winglee, R. M., & Böhm, K.-H. 2002, ApJ, 574, 232 Simulation-Based Investigation of a Model for the Interaction Between Stellar Magnetospheres and Circumstellar Accretion Disks
- [3] Böhm, K.-H., & Matt, S. 2001, PASP, 113, 158; An Approx. Determination of the Gas-Phase Metal Abundance in Herbig-Haro Outflows and Their Shocks
- [2] Matt, S., Balick, B., Winglee, R., & Goodson, A. 2000, ApJ, 545, 965

 Disk Formation by Asymptotic Giant Branch Winds in Dipole Magnetic Fields
- [1] Wallerstein, G., **Matt, S.**, & Gonzalez, G. 2000, MNRAS, 311, 414; *The carbon Cepheid RT Trianguli Australis: additional evidence of triple-α and CNO cycling*

Unrefereed Conference Proceedings:

- [24] Strugarek A, Brun, A S, **Matt, S P**, Réville, V. 2015, in proc. of IAU General Assembly, Vol. 1 Astronomy in Focus, Eds. P Benvenuti, p. 14; *Planet migration and magnetic torques*
- [23] Strugarek A, Brun, A S, **Matt, S P**, Réville, V. 2015, IAU Symp. No. 320, Solar & Stellar Flares & their Effects on Planets, Eds. A G Kosovichev, S L Hawley, P Heinzel, p. 403

 Magnetic energy fluxes in close-in star-planet systems
- [22] Réville, V, Brun, A S, Strugarek A, **Matt, S P**, et al. 2015, IAU Symp. No. 320, Solar & Stellar Flares & their Effects on Planets, Eds. A G Kosovichev, S L Hawley, P Heinzel, p. 297

- The role of complex magnetic topologies on stellar spin-down
- [21] Strugarek, A., Brun, A. S., **Matt, S. P.**, Réville, V. 2014, in proc. of The 18th Cambridge Workshop on Cool Stars, Stellar Systems, & the Sun (AIP Conf. Proc.), Eds. G. van Belle & H. Harris, *Numerical Aspects of 3D Stellar Winds*
- [20] Strugarek, A., Brun, A. S., **Matt, S. P.**, Réville, V., Donati, J.-F., Moutou, C., Fares, R. 2014, proc. Of the French Soc. of Astro. and Astroph. (SF2A) meeting, Eds. J. Ballet et al., p. 279 *Modelling the Corona of HD 189733 in 3D*
- [19] Réville, V., Brun, A. S., **Matt, S. P.**, Strugarek, A., Pinto, R. 2014, proc. of the French Soc. Of Astro. and Astroph. (SF2A) meeting, Eds. J. Ballet et al., p. 509

 The Influence of the Magnetic Topology on the Wind Braking of Sun-Like Stars
- [18] Strugarek, A., Brun, A. S., **Matt, S. P.**, Reville, V. 2014, IAU Symp. No. 300, Nature of Prominences and their role in Space Weather, Eds. B. Schmieder, J-M Malherbe, S.T Wu., p. 330 *Modeling magnetized star-planet interactions: boundary conditions effects*
- [17] Aarnio, A. N., Stassun, K. G., **Matt, S. P.** 2014, IAU Symp. No. 300, Nature of Prominences and their role in Space Weather, Eds. B. Schmieder, J-M Malherbe, S.T Wu., p. 318 *Coronal Mass Ejections and Angular Momentum Loss in Young Stars*
- [16] Pudritz, R. E., **Matt, S. P.** 2014, proc. Physics at the Magnetospheric Boundary, Eds. E. Bozzo, P. Kretschmar, M. Audard, M. Falanga, C. Ferrigno, EPJ Web of Conferences, Vol. 64 *The Early History of Stellar Spin: the Theory of Accretion onto Young Stellar Objects*
- [15] Strugarek, A., Brun, A. S., **Matt, S. P.** 2012, proc. of the French Soc. of Astro. and Astroph. (SF2A) meeting, Eds. S. Boissier et al., p. 419; *On close-in magnetized star-planet interactions*
- [14] Güdel, M., ..., **Matt, S.**, et al. 2011, in proc. of The 16th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun (ASP Conf. Proc.), Vol. 448, p. 617 *The Bipolar X-ray Jet of the Classical T Tauri Star DG Tau*
- [13] **Matt, S. P.** & Pudritz, R. E. 2009, in proceedings of The 15th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun (AIP Conf. Proc.), Vol. 1094, p. 369 *New Calculations of Stellar Wind torques*
- [12] Reiners, A., Scholz, A. Eisloffel, J., Hallinan, G., Berger, E., Browning, M., Irwin, J., Kuker, M., & Matt, S. 2009, in proceedings of The 15th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun (AIP Conf. Proc), Vol. 1094, p. 250
 The Rotation-Magnetic Field Relationship
- [11] Gregory, S. G., **Matt, S. P.**, Donati, J.-F., & Jardine, M. 2009, in proc. of The 15th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun (AIP Conf. Proc.), Vol. 1094, p. 71 *The Magnetic Fields of Accreting T Tauri Stars*
- [10] Aarnio, A. N., Stassun, K. G., & **Matt, S. P.** 2009, in proceedings of The 15th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun (AIP Conf. Proc.), Vol. 1094, p. 337 *T Tauri Angular Momentum Loss Via Large Scale Eruptive Flaring Events*
- [9] **Matt, S.** & Pudritz, R. E., 2008, in proceedings of The 14th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun, ed. G. van Belle (San Francisco: ASP), p. 338 *Understanding the Spins of Young Stars* (invited review)
- [8] Matt, S. & Pudritz, R. E., 2007, in proceedings of IAU Symp. No. 243, Star-Disk Interaction in Young Stars, eds. J. Bouvier & I. Appenzeller, p. 299

 The Nature of Stellar Winds in the Star-Disk Interaction
- [7] Bary, J. S. & Matt, S. 2007, in proceedings of IAU Symp. No. 243, Star-Disk Interaction in Young Stars, eds. J. Bouvier & I. Appenzeller, p. 95

 Measuring the Physical Conditions of Accreting Gas in T Tauri Systems
- [6] Matt, S. & Pudritz, R. E. 2005, in Protostars & Planets V, U. of Arizona Press, Tucson, p. 8019 Spin of Accreting Stars: Accretion Powered Stellar Winds vs. Disk Locking
- [5] **Matt, S.** & Pudritz, R. E., 2004, in Gravitational Collapse: from Massive Stars to Planets, Rev. Mex. A. A. S. C., eds G. Garcia-Segura, G. Tenorio-Tagle, J. Franco, & H. Yorke, 22, 69 *The Spin History of Protostars: Disk Locking, Revisited*
- [4] Matt, S., Frank, A., & Blackman, E. 2004, in Asymmetric Planetary Nebulae III, ASP Conference

- Series, Vol. 313, Eds M. Meixner, J. Kastner, B. Balick, N. Soker, p. 449 *The Last Hurrah: PPN Formation by a Magnetic Explosion*
- [3] **Matt, S.**, Winglee, R., & Böhm, K.-H. 2003, in Jets in Young Stellar Objects: Theory and Observations in YSO's, Eds A.J.L. Fernandes, P.J.V. Garcia, J.J.G. Lima, Kluwer, p. 65 *Collimation of a Central Wind by a Disk-Associated Magnetic Field*
- [2] Balick, B. & Matt, S. 2001, in Eta Carinae and Other Mysterious Stars: The Hidden Opportunities of Emission Spectroscopy, ASP Conference Series, Vol. 242. Eds T. R. Gull, S. Johannson, K. Davidson, p.155; *Magnetic Formation of the Lobes and Equatorial Disk around Eta Carinae?*
- [1] Böhm, K.-H., & Matt, S. 1999, in Optical and Infrared Spectroscopy of Circumstellar Matter, ASP Conf. Series, Vol. 188., Eds Eike Guenther, Bringfried Stecklum, and Sylvio Klose, p. 11 Spectroscopic Insight and the Physics of Circumstellar Matter: Josef Solf's Contribution to Astrophysics

Government Reports:

Ji, H. et al. 2010, White Paper for Workshop on Opportunities in Plasma Astrophysics; I was member and co-author of working group on *Observations and Modeling of Jets and Outflows*

Millan-Gabet, R., Monnier, J., ... **Matt, S.**, et al. 2009, Astro2010 Decadal Survey Science White Paper, Planetary and Star Formation; *How and When do Planets Form? The Inner Regions of Planet Forming Disks at High Spatial and Spectral Resolution*

INVITED TALKS, CONTRIBUTIONS TO MEETINGS, WORKSHOPS

36 conference talks (18 invited, 7 reviews); 40 Department Colloquia

- [107] 2 Co-Authored Posters, Attended: AAS 245 Meeting, National Harbor, MD, January 2025
- [106] SOC Member, Session Chair, Attended: Physical processes in the inner disk of young stars: accretion, ejection and planet formation, Corsica, France, May 2023
- [105] <u>Invited Seminar</u>: Colloquium at Colgate U, Hamilton, NY, April 2023 *Rotation, Magnetism, and Mass-Loss of Sun-Like Stars*
- [104] Attended/Participated: Sun-as-a-Star Workshop, Flatiron Inst., NYC, NY, March 2023
- [103] <u>Invited Seminar</u>: Colloquium at Lafayette College, Easton, PA, March 2023 *Rotation, Magnetism, and Mass-Loss of Sun-Like Stars*
- [102] <u>Invited Seminar</u>: Colloquium at U Oklahoma (interview), Norman, OK, February 2023 *Rotation, Magnetism, and Mass-Loss of Sun-Like Stars*
- [101] <u>Invited Seminar</u>: Research talk at U Oklahoma, Norman, OK, February 2023 *Understanding Sun-Like Stars, Opportunities for OU Astronomy*
- [100] Attended: Gothamfest, Manhattan-Area Astro Meeting, Flatiron Inst, NYC, NY, Jan 2023
- [99] Co-Authored Poster, Attended: AAS 241 Meeting, Seattle, Washington, January 2023
- [98] <u>Invited Seminar</u>: Colloquium at U Washington, Seattle, WA, November 2022 Developing a Standard Model for Rotation, Magnetic Activity, & Mass Loss of Sun-Like Stars
- [97] Invited Seminar: U Oklahoma, Astro Group, Norman, OK, October 2022

 Developing a Standard Model for Rotation, Magnetic Activity, & Mass Loss of Sun-Like Stars
- [96] **Review Talk: 50 Years of the Skumanich Relations**, Boulder, CO, March 2022 *Solar-& Stellar-Wind Torques from Observations and Theory*
- [95] 4 Co-Authored Posters & 1 Co-Authored Talk: Cool Stars 20.5 Virtual Mtng, March, 2021
- [94] Contributed Talk: 16th Potsdam Thinkshop on Rotation, Potsdam, Germany, Sept, 2019 What Causes the Rotation Period "Gap" in Young Clusters?
- [93] Contributed Talk: BCool Collaboration Meeting #8, Exeter, UK, July, 2019 What Causes the Rotation Period "Gap" in Young Clusters?
- [92] Contributed Talk: ISSI Meeting #2 on Solar/Stellar Winds, Bern, Switzerland, June, 2019 Updates on Torques, Mass-Loss Rates, Fitting, and Metallicity Effects
- [91] Invited Seminar: University of Leicester, UK, February, 2019
 Rotation, Magnetic Activity, & Mass Loss in Sun-Like Stars
- [90] **Poster Presentation: AAS 233 Meeting**, Seattle, Washington, January 2019 *What Causes the Rotation Period Gap in Young Clusters?*
- [89] <u>Invited Talk</u>: Computation Astro. Splinter at Cool Stars 20, Boston, MA, July, 2018 Stellar Winds, Activity, and Angular Momentum Evolution
- [88] Contributed Talk: ISSI Meeting #1 on Solar/Stellar Winds, Bern, Switzerland, May, 2018 Calculating Wind Torques & Connecting Spin-Evolution to Magnetic Activity
- [87] Attended BCool Collaboration Meeting #7, Dublin, Ireland, April, 2018
- [86] Invited Seminar: Astrophysics Institute Potsdam, Potsdam, Germany, March, 2018 Rotation, Magnetic Activity, & Mass Loss in Sun-Like Stars
- [85] Invited Seminar: UCL Mullard Space Science Lab., UK, February, 2018 Rotation, Magnetic Activity, & Mass Loss in Sun-Like Stars
- [84] Invited Seminar: Liverpool John Moores University, UK, December, 2017 Rotation, Magnetic Activity, & Mass Loss in Sun-Like Stars
- [83] Invited Seminar: Queen's University Belfast, UK, November, 2017 Rotation, Magnetic Activity, & Mass Loss in Sun-Like Stars
- [82] Contributed Talk: Stellar Magnetism & Spin Wkshop, WWU, Bellingham, WA, Aug, 2017 Accretion, Winds, & Evolution of Spins & Magnetism of Stars
- [81] Attended TOUPIES 6th/Final Meeting, Montpellier, France, November, 2016
- [80] Attended Exeter Star Formation Meeting, UK, August, 2016

- [79] <u>Invited Talk</u>: Solar/Stellar Workshop, U. of Warwick, UK, July, 2016 *Rotation, Magnetic Activity, and Mass Loss of Sun-Like Stars*
- [78] Invited Talk: Cluster Splinter at Cool Stars 19, Uppsala, Sweden, June, 2016 Stellar Angular Momentum Over Time
- [77] <u>Invited Seminar</u>: University of Birmingham, UK, May, 2016 Rotation, Magnetic Activity, & Mass Loss in Sun-Like Stars
- [76] <u>Invited Seminar</u>: University of Southampton, UK, May, 2016 Rotation, Magnetic Activity, & Mass Loss in Sun-Like Stars
- [75] Invited Seminar: MPA/MPE/ESO Joint Astro Colloq, Garching, Germany, March, 2016 Rotation, Magnetic Activity, & Mass Loss in Sun-Like Stars
- [74] <u>Invited Seminar</u>: Imperial College London, UK, February, 2016 *Rotation, Magnetic Activity, & Mass Loss in Sun-Like Stars*
- [73] Contributed Talk: TOUPIES 5th General Meeting, CEA Saclay, France, May, 2015 *The Mass-Dependence of Spin-Down*
- [72] <u>Invited Review Talk</u>: IAU symposium 314: Young Stars & Planets Near the Sun, Atlanta, Georgia, May, 2015; *Early Rotational Evolution*
- [71] Invited Seminar: Colloquium at U. of Cambridge (DAMTP), UK, Jan., 2015

 Toward a Comprehensive Picture of Rotation, Mag. Activity, and Mass Loss in Sun-Like Stars
- [70] Contributed Talk: TOUPIES 4th General Meeting, Grenoble, France, October, 2014 The Mass-Dependence of Angular Momentum Evolution in Sun-Like Stars
- [69] <u>Invited Talk</u>: Accretion and Outflows throughout the scales: from YSOs to AGNs, Lyon, France, October, 2014; *The Importance of Accretion & Outflows for Young Star Spins*
- [68] <u>Invited Talk</u>: UK MHD Meeting, Exeter, UK, May, 2014 MHD Simulations to Compute Stellar Angular Momentum Loss
- [67] Attended Collab. Workshop on Star-Disk Interaction with PLUTO, Torino, Italy, May, 2014
- [66] <u>Invited Seminar</u>: University of Sheffield, Sheffield, UK, February, 2014 *Angular Momentum Evolution of Low-Mass Stars*
- [65] Contributed Talk: TOUPIES Star-Disk Interaction Meeting, Grenoble, France, Jan, 2014 *Theoretical Star-Disk Interaction Projects and Open Questions*
- [64] Invited Review Talk: 400 Years of Stellar Rotation, Natal, Brazil, November, 2013 The Physics of Low-Mass Stellar Angular Momentum Evolution
- [63] Contributed Talk: TOUPIES 3rd General Meeting, Toulouse, France, October, 2013 Science Update from CEA Pole
- [62] <u>Selected Review Talk</u>: Protostars & Planets VI Conference, Heidelberg, Germany, July, 2013 Angular Mom. Evol. of Young, Low-Mass Stars and Brown Dwarfs: Observations and Theory
- [61] Attended TOUPIES 2nd General Meeting, Montpellier, France, December, 2012
- [60] <u>Invited Seminar</u>: Colloquium at University of Washington, Seattle, Washington, Oct, 2012 The Dynamics of Stellar Evolution
- [59] <u>Invited Seminar</u>: University of Exeter (prof interview), Exeter, UK, October, 2012 *The Dynamics of Stellar Evolution*
- [58] <u>Invited Seminar</u>: University of Cambridge (DAMTP) (prof interview), Cambridge, UK, July, 2012; *The Stellar Angular Momentum Problem*
- [57] <u>Invited Review Talk</u>: special session on Angular Momentum Evolution of Cool Stars: 17th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun, Barcelona, Spain, June 2012; *The Physics of Stellar Spin Evolution*
- [56] Poster Presentation: 17th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun, Barcelona, Spain, June 2012; Convection, Diff. Rot., & Dynamo Simulations of G and K Stars
- [55] Contributed Talk: Journées de la SF2A, Nice, France, June, 2012 Convection, Differential Rotation, and Dynamo Simulations of G and K Stars
- [54] <u>Invited Talk</u>: Magnetism in Massive Stars (MiMeS) 6th Workshop, CEA Saclay, France, May, 2012; *Stellar Winds in Low Mass Stars*
- [53] Invited Seminar: Colloquium at Exeter University, Exeter, England, April, 2012

- Angular Momentum Loss by Stellar Winds
- [52] <u>Invited Seminar</u>: Georgia St. U. Physics & Astro Dept. (prof interview), Atlanta, GA, Mar, 2012, *The Angular Momentum Problem for Ordinary Stars*
- [51] Attended: Colloque Prog. National Soleil-Terre, La Londe Les Maures, France, Mar, 2012
- [50] <u>Invited Seminar</u>: U. Oklahoma Physics & Astro Dept. (prof interview), Norman, OK, Mar, 2012, *The Angular Momentum Problem for Ordinary Stars*
- [49] <u>Invited Seminar</u>: Lehigh University Physics Dept. (prof interview), Bethlehem, PA, Feb., 2012, *The Angular Momentum Problem for Ordinary Stars*
- [48] <u>Invited Seminar</u>: Colloquium at University of St. Andrews, St. Andrews, Scotland, Feb., 2012 *Angular Momentum Loss by Stellar Winds*
- [47] <u>Invited Seminar</u>: Colloquium at Dublin Inst. for Advanced Study, Dublin, Ireland, Feb., 2012, *Stellar Winds During Star Formation and Evolution*
- [46] Contributed Talk: TOUPIES Kick-Off Meeting, Grenoble, France, January, 2012 TOUPIES Task 3B: Computing External Torques with PLUTO
- [45] Invited Seminar: COAST Séminaire, CEA Saclay, France, December, 2011 Simulations of Stellar Winds (and why they're important)
- [44] <u>Invited Talk:</u> Magnetic Protostars & Planets Meeting, Toulouse, France, November, 2011 *Accretion-Powered Stellar Winds*
- [43] Contributed Talk & Poster: 7th Potsdam Thinkshop, Mag. Fields in Stars & Exoplanets, Potsdam, Germany, August, 2011; (Talk) Magnetic Fields and Angular Momentum Loss; (Poster) Convection and Differential Rotation Properties of G and K Stars
- [42] Attended: Festival de la Théory, Aix en Provence, France, July, 2011
- [41] **Poster Presentations: Journées de la SF2A**, Paris, France, June, 2011; (1) Quantifying Mag. Stellar Wind Torques; (2) Convection & Differential Rotation Properties of G and K Stars
- [40] <u>Invited Seminar</u>: Colloquium at Observatoire de Bordeaux, Bordeaux, France, April, 2011 Stellar Winds and the Angular Momentum Problem
- [39] SAC Member/Discussion Panel Organizer/Poster Presentation, Transport Processes and Accretion in YSOs, Ringberg, Germany, Feb. 2011, Angular Mom. Loss Via Stellar Winds
- [38] **Poster Presentation: Winter 2011 AAS Meeting #217**, Seattle, Washington *Quantifying Magnetic Stellar Wind Torques*
- [37] <u>Invited Seminar</u>: Colloquium at NASA Ames, Mountain View, California, March, 2010 *Stellar Winds and the Angular Momentum Problem*
- [36] <u>Invited Seminar</u>: Colloquium at High Altitude Observatory, Boulder, CO, February, 2010 *Stellar Winds and the Angular Momentum Problem*
- [35] **Poster Presentation: IAU General Assembly Meeting (SpS7),** Rio de Janeiro, Brazil, Aug. 2009, *Angular Momentum Loss Via Stellar Winds*
- [34] <u>Invited Seminar</u>: Colloquium at UC Berkeley Space Sciences Lab, Berkeley, CA, Feb., 2009 Stellar Winds and The Angular Momentum Problem
- [33] <u>Invited Seminar:</u> Yale University Astronomy Department (prof interview), New Haven, CT, January 20, 2009; *Accretion-Powered Stellar Winds and the Angular Momentum Problem*
- [32] <u>Invited Review Talk</u>: special session on the Rotation-Mag. Field Relation: 15th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun, St. Andrews, Scotland, July 2008 *Magnetic Fields and Wind Braking*
- [31] Poster Presentation: 15th Cambridge Workshop on Cool Stars, Stellar Systems, & the Sun, St. Andrews, Scotland, July 2008; *New Calculations of Stellar Wind Torques*
- [30] **Oral Presentation: Winter 2008 AAS Meeting #211**, Austin TX New Calculations of Magnetic Braking for Sun-Like Stars
- [29] <u>Invited Seminar:</u> Colloquium at Las Cumbres Observatory Global Telescope Network, Santa Barbara CA, Dec. 2007; *The Wind and Spin of the Sun*
- [28] Contributed Talk: IAU Symposium No. 243, Star-Disk Interaction in Young Stars, Grenoble, France, May 2007; The Nature of Stellar Winds in the Star-Disk Interaction
- [27] Poster Presentation: Winter 2007 AAS Meeting #209, Seattle WA

- The Spin of Accreting Stars and Accretion-Powered Stellar Winds
- [26] <u>Invited Review Talk</u>: 14th Cambridge Workshop on Cool Stars, Stellar Systems, & the Sun, Pasadena CA, Nov. 2006; *Understanding the Spins of Young Stars*
- [25] <u>Invited Seminar</u>: Colloquium at UCSD/CASS, San Diego CA, Sept. 2006 Stellar Winds and the Angular Momentum Problem
- [24] <u>Invited Seminar</u>: Colloquium at Vanderbilt University, Nashville TN, Sept. 2006 Stellar Winds and the Angular Momentum Problem
- [23] <u>Invited Talk</u>: ASIAA-TIARA Star Formation Workshop, Taipei, Taiwan, Dec. 2005 *Pre-Main-Sequence Stellar Winds: Hot or Cold, Weak or Bold?*
- [22] Invited Talk: TIARA Star Formation Program, Hsinchu, Taiwan, Nov./Dec. 2005 Spin of Accreting Stars: Accretion Powered Stellar Winds vs. Disk Locking
- [21] Poster Presentation: Protostars and Planets V Conference, Kona HI, Oct. 2005 Spin of Accreting Stars: Accretion Powered Stellar Winds vs. Disk Locking
- [20] <u>Invited Seminar</u>: UVA Astronomy/NRAO Colloquium at UVa, Charlottesville VA, Sep 2005 Spinning Stellar Winds Winds Down Stellar Spinning
- [19] Attended: Astrobiology Conference, Hamilton ON, Canada, May 2005
- [18] <u>Invited Seminar:</u> Colloquium at Lowell Observatory, Flagstaff AZ, Mar. 2005 Stellar Winds Wound Down Stellar Spins and Other Teachings of Outflow Nebulae
- [17] <u>Invited Seminar</u>: Astronomy Colloquium at the Univ. of Wisconsin, Madison WI, Sept. 2004 Solving the Stellar Angular Momentum Problem
- [16] <u>Invited Talk</u>: Massive Stars: From Photospheres to V_{∞} (Workshop to honor career of J. Cassinelli), Madison WI, Sep 2004; *Disk, Jet, & Lobe Form. by Winds in Rot. Mag. Fields*
- [15] <u>Invited Talk</u>: Gravitational Collapse: From Massive Stars to Planets (Workshop to honor the career of Peter Bodenheimer), Ensenada, Mexico, Dec., 2003

 The Spin History of Protostars: Disk Locking, Revisited
- [14] Attended: Workshop on Adaptive Mesh Refinement Methods, Chicago IL, Sept. 2003
- [13] Invited Talk: Asymmetric Planetary Nebulae III (Conference), Mt. Rainier WA, July 2003 The Last Hurrah: PPN Formation by a Magnetic Explosion
- [12] <u>Invited Seminar</u>: Phys/Astro Colloquium at McMaster U., Hamilton ON, Canada, July 2003 Fling! Twist! Pow! The Formation of Spectacular Outflow Nebulae
- [11] Contributed Talk: June, 2003 CASCA Meeting, Waterloo, ON; MHD Simulations of the Star-Disk Interaction: Accretion, Jet Formation, and Angular Momentum Exchange
- [10] <u>Invited Seminar</u>: Phys/Astro Colloquium at the Univ. of Rochester, Rochester NY, Feb, 2003 *How Magnetic Fields Shape Stellar Winds*
- [9] **Poster Presentation: Winter 2003 AAS Meeting #201**, Seattle WA *Quadrupolar Outflow: A Single-Wind Model for the eta Carinae Nebula*
- [8] <u>Invited Seminar</u>: Hamilton Amateur Astronomers Seminar, Hamilton ON, Canada, Oct. 2002 *Outflows During Stellar Birth and Death*
- [7] Contributed Talk: JENAM 2002 Conf.: Jets 2002: Theory and Observations in YSO's, Porto, Portugal, Sept 2002; Collimation of a Central Wind by a Disk-Associated Mag. Field
- [6] Contributed Talk: Eta Carinae: Reading the Legend Conference, Mt. Rainier WA, July 2002 Simultaneous Production of Skirt & Lobes: A Preliminary Model
- [5] **Poster Presentation: Winter 2002 AAS Meeting #199**, Washington DC; Launch, Accrete, Repeat: Investigation of Disk Oscillations in an Episodic YSO Jet Formation Model
- [4] Poster Presentation: Summer 2001 AAS Meeting #198, Pasadena CA Old Faithful: Simulation-Based Investigation of an Episodic Jet Formation Model
- [3] **2 week visit with Dr. Alejandro Raga** (May, 2001) at UNAM for personal instruction on including the effect of non-equilibrium, radiative cooling in my MHD codes.
- [2] NASA/GSFC Summer School (2000) in High Performance Computational Earth and Space Sciences: 3 week program, focused on developing software for massively parallel architectures.
- [1] Poster Presentation: Summer 2000 AAS Meeting #196, Rochester NY Bipolarity Without Binarity: AGB Winds, Dipole Magnetic Fields, and Disk Formation