Elise Furlan

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Education

January 2006	PhD in Astronomy and Space Sciences from Cornell University
January 2003	M.S. in Astronomy and Space Sciences from Cornell University
June 1999	B.S. in astronomy ("Magistra rerum naturalium") from the University of Innsbruck, Austria

Employment

June 2008 – present	Spitzer Postdoctoral Fellow at the Jet Propulsion Laboratory; advisor: Michael Werner
March 2008 – May 2008	Postdoctoral Researcher, Institute of Geophysics and Planetary Physics, UCLA; advisor: Edward Young
March 2006 – February 2008	NASA Postdoctoral Fellow at the NASA Astrobiology Institute at UCLA; advisor: Prof. Andrea Ghez
January – February 2006	Researcher, Center for Radiophysics and Space Research (CRSR), Cornell University
August 2001 – December 2005	Graduate Research Assistant, CRSR, Cornell University; advisor: Prof. Terry Herter
Summer 2000, 2001	Research Assistant, CRSR, Cornell University; advisor: Prof. Terry Herter
August 1999 – May 2001	Teaching Assistant, Department of Astronomy, Cornell University

Awards

November 2005	Prize (one of three awarded each year) of the "Stiftung zur Förderung junger Südtiroler im Ausland" (Foundation for the promotion of young South-Tyroleans living abroad), Association of Hotel and Restaurant Owners, Bozen, Italy
May 2005	"Cranson W. and Edna B. Shelley Award for Excellence in Research in Astronomy – Graduate Award", Astronomy Department, Cornell University
1994	Prize of the "Dr. Otto Seibert-Stipendien-Schenkung" (Prize Foundation of Dr. Otto Seibert), University of Innsbruck, Austria

Professional Memberships

since 2006	full member of the American Astronomical Society
2004 – 2005	junior member of the American Astronomical Society
since 2002	member of the Austrian Society for Astronomy and Astrophysics

Activities

September 2003 – August 2005	member of the Pay & Benefits Committee of the Graduate and Professional Student Assembly (GPSA) at Cornell (vice-chair from September 2004 to August 2005)
September 2003 – May 2004	astronomy representative at the GPSA Council

Research Interests

- star formation: evolution of the dust and gas in circumstellar envelopes and disks, studied from infrared to millimeter wavelengths (spectra, spectral energy distribution)
- planet formation in protoplanetary disks: changes in the distribution and composition of the dust and gas due to the formation of larger bodies
- modeling of circumstellar material to derive the structure of envelopes and disks
- high-resolution imaging of circumstellar environments to disentangle multiple systems and to directly observe the imprints of evolution by spatially resolving disk structure

Refereed Publications:

- Furlan, E., Watson, D. M., McClure, M., Manoj, P., Espaillat, C., D'Alessio, P., Calvet, N., Kim, K. H., et al. 2009, ApJ, submitted: "Disk Evolution in the Three Nearby Star-Forming Regions of Taurus, Chamaeleon, and Ophiuchus"
- Furlan, E., McClure, M., Calvet, N., Hartmann, L., D'Alessio, P., Forrest, W. J., Watson, D. M., Uchida, K. I., et al. 2008, ApJS, 176, 184: "Spitzer IRS Spectra and Envelope Models of Class I Protostars in Taurus"
- Furlan, E., Sargent, B., Calvet, N., Forrest, W. J., D'Alessio, P., Hartmann, L., Watson, D. M., Green, J. D., et al. 2007, ApJ, 664, 1176: "HD 98800: A 10 Myr Old Transition Disk"
- Furlan, E., Hartmann, L., Calvet, N., D'Alessio, P., Franco-Hernández, R., Forrest, W. J., Watson, D. M., Uchida, K. I., et al. 2006, ApJS, 165, 568: "A Survey and Analysis of Spitzer IRS Spectra of T Tauri Stars in Taurus"
- Furlan, E., Calvet, N., D'Alessio, P., Hartmann, L., Forrest, W. J., Watson, D. M., Uchida, K. I., Sargent, B., et al. 2005, ApJL, 628, L65: "Colors of Classical T Tauri Stars in Taurus Derived from Spitzer Infrared Spectrograph Spectra: Indication of Dust Settling"
- Furlan, E., Calvet, N., D'Alessio, P., Hartmann, L., Forrest, W. J., Watson, D. M., Luhman, K. L., Uchida, K. I., et al. 2005, ApJL, 621, L129: "Spitzer IRS Spectra of Young Stars Near the Hydrogen Burning Mass Limit"
- Furlan, E., Forrest, W. J., Watson, D. M., Uchida, K. I., Brandl, B. R., Keller, L. D., Herter, T. L. 2003, ApJ, 596, L87 (and 2003, ApJ, 599, L117: Erratum): "Near-Infrared, Adaptive Optics Observations of the T Tauri Multiple-Star System"
- Sargent, B. A., Forrest, W. J., Tayrien, C., McClure, M. K., Watson, D. M., Sloan, G. C., Li, A., Manoj, P., Bohac, C. J., Furlan, E., et al. 2009, ApJ, in press: "Dust Processing and Grain Growth in Protoplanetary Disks in the Taurus-Auriga Star-Forming Region"
- Zasowski, G., Markwick-Kemper, F., Watson, D. M., Furlan, E., Bohac, C. J., Hull, C., Green, J. D. 2009, ApJ, in press: "Spitzer IRS Observations of Class I/II Sources in Taurus: Composition, Temperature and Thermal History of the Ices"
- Sargent, B. A., Forrest, W. J., Tayrien, C., McClure, M. K., Li, A., Basu, A. R., Manoj, P., Watson, D. M., Bohac, C. J., Furlan, E., et al. 2009, ApJ, 690, 1193: "Silica in Protoplanetary Disks"
- Watson, D. M., Leisenring, J. M., Furlan, E., Bohac, C. J., Sargent, B., Forrest, W. J., Calvet, N., Hartmann, L., et al. 2009, ApJS, 180, 84: "Crystalline Silicates and Dust Processing in the Protoplanetary Disks of the Taurus Young Cluster"
- McClure, M. K., Forrest, W. J., Sargent, B. A., Watson, D. M., Furlan, E., Manoj, P., Tayrien, C., Harrold, S. T., et al. 2008, ApJL, 683, L187: "A Sub-AU Outwardly Truncated Accretion Disk Around a Classical T Tauri Star"
- Espaillat, C., Calvet, N., D'Alessio, P., Hernández, J., Qi, C., Hartmann, L., Furlan, E., Watson, D. M. 2007, ApJL, 670, L135: "On the Diversity of the Taurus Transitional Disks: UX Tauri A and LkCa 15"
- Watson, D. M., Bohac, C. J., Hull, C., Forrest, W. J., Furlan, E., Najita, J., Calvet, N., D'Alessio, P., et al. 2007, Nature, 448, 1026: "The Development of a Protoplanetary Disk from its Natal Envelope"

- Espaillat, C., Calvet, N., D'Alessio, P., Bergin, E., Hartmann, L., Watson, D. M., Furlan, E., Najita, J., et al. 2007, ApJL, 664, L111: "Probing the Dust and Gas in the Transitional Disk CS Cha with Spitzer"
- Green, J. D., Hartmann, L., Calvet, N., Watson, D. M., Ibrahimov, M., Furlan, E., Sargent, B., Forrest, W. J. 2006, ApJ, 648, 1099: "Spitzer IRS Observations of FU Orionis Objects"
- Sargent, B., Forrest, W. J., D'Alessio, P., Li, A., Najita, J., Watson, D. M., Calvet, N., Furlan, E., et al. 2006, ApJ, 645, 395: "Dust Processing in Disks around T Tauri Stars"
- Calvet, N., D'Alessio, P., Watson, D. M., Franco-Hernández, R., Furlan, E., Green, J., Sutter, P. M., Forrest, W. J., et al. 2005, ApJL, 630, L185: "Disks in Transition in the Taurus Population: Spitzer IRS Spectra of GM Aurigae and DM Tauri"
- Hartmann, L., Calvet, N., Watson, D. M., D'Alessio, P., Furlan, E., Sargent, B., Forrest, W.J., Uchida, K. I., et al. 2005, ApJL, 628, L147: "The Accretion Disk of the Lithium-depleted Young Binary St 34"
- D'Alessio, P., Hartmann, L., Calvet, N., Franco-Hernández, R., Forrest, W. J., Sargent, B., Furlan, E., Uchida, K. I., et al. 2005, ApJ, 621, 461: "The Truncated Disk of CoKu Tau/4"
- Watson, D. M., Kemper, F., Calvet, N., Keller, L. D., Furlan, E., Hartmann, L., Forrest, W. J., Chen, C. H., et al. 2004, ApJS, 154, 391: "Mid-Infrared Spectra of Class I Protostars in Taurus"
- Forrest, W. J., Sargent, B., Furlan, E., D'Alessio, P., Calvet, N., Hartmann, L., Uchida, K. I., Green, J. D., et al. 2004, ApJS, 154, 443: "Mid-Infrared Spectroscopy of Disks around Classical T Tauri Stars"
- Uchida, K. I., Calvet, N., Hartmann, L., Kemper, F., Forrest, W. J., Watson, D. M., D'Alessio, P. D., Chen, C. H., Furlan, E., et al. 2004, ApJS, 154, 439: "The State of Protoplanetary Material 10 Million Years after Stellar Formation: Circumstellar Disks in the TW Hydrae Association"
- Jura, M., Chen, C. H., Furlan, E., Green, J. D., Sargent, B., Forrest, W. J., Watson, D. M., Barry, D. J., et al. 2004, ApJS, 154, 453: "Mid-Infrared Spectra of Dust Debris around Main-Sequence Stars"
- Kerber, F., Furlan, E., Roth, M., Galaz, G., Chanamé, J. C. 2000, PASP, 112, 542: "Investigating New Planetary Nebulae in the Southern Hemisphere"
- Clayton, G. C., Kerber, F., Gordon, K. D., Lawson, W. A., Wolff, M. J., Pollacco, D. L., Furlan, E. 1999, ApJ, 517, L143: "The Ever-changing Circumstellar Nebula around UW Centauri"