

“Believe those who are seeking the truth. Doubt those who find it” A. Guide

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Curriculum Vitae (27 April 2004)

General Information

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Education

Undergraduate Study

Dates	1982-1988
Institution	Universities of Barcelona and La Laguna, Spain
Qualification Conferred	BSc in Physics

Doctoral Study

PhD date	January 1994
Institution	University of La Laguna, Spain
Thesis Title	Early evolution of low mass stars and objects around the substellar mass limit

Scholarships-Fellowships-Jobs

- Investigador principal, Instituto de Astrofísica de Canarias, Spain (2003-present).
- Part-time associate professor, University of Central Florida, Orlando, USA (2003-present).
- Assistant Professor and Researcher, University of Hawaii at Manoa, Institute for Astronomy, USA (2000-2003).
- Visiting scholar, Department of Planetary Sciences, Caltech, USA (1999-2000).
- Fullbright postdoctoral fellow, Astronomy Department, University of California at Berkeley, USA (1997-1999).
- Support astronomer, Teide Observatory, Tenerife, Canary Islands, Spain (1994-1997).
- Marie Curie Postdoctoral fellow, Anton Pannekoek Institut, University of Amsterdam, Holland (1994).
- Resident astronomer, Instituto de Astrofísica de Canarias, Spain (1990-1993).
- INSU research fellowship at the Institut d'Astrophysique de Paris, France (1988-1990).
- Undergraduate studentship at the Royal Greenwich Observatory, England (1988, 3 months).
- Undergraduate studentship at the Teide Observatory in the Canary Islands, Spain (1987, 3 months).

LIST OF PUBLICATIONS

Refereed Journals

- 1991, Basri, G., Martín, E.L., Bertout, C. “The Lithium Resonance Line in T Tauri Stars” *Astronomy and Astrophysics*, **252**, 625
- 1991, Magazzù, A., Martín, E.L., Rebolo, R. “Lithium in the Pre-Main Sequence Triple System UX Tau” *Astronomy and Astrophysics*, **249** , 149
- 1992, Martín, E.L., Rebolo, R., Casares, J., Charles, P.A. “High Lithium Abundance in the Secondary of the Black-Hole Binary System V404 Cyg” *Nature*, **358** , 129
- 1992, Martín, E.L., Magazzù, A, Rebolo, R. “On the Post T Tauri Nature of Late-type Visual Companions to Early-type Stars” *Astronomy and Astrophysics* , **257** , 186
- 1992, Rebolo, R., Martín, E.L., Magazzù, A “Spectroscopy of a Brown Dwarf Candidate in the α Persei Open Cluster *The Astrophysical Journal*, **389**, L83.
- 1993, Martín, E.L. “The Peculiar Nature of BD +24°676” *Publ. Astr. Soc. Pacific*, **105** , 277
- 1993, McKeith, C.D., Garcia-Lopez, R.J., Rebolo, R., Barnett, E.W., Beckmann, J., Martín, E.L., Trapero, J. “IACUB: a new echelle spectrograph at the Observatorio del Roque de los Muchachos”, *Astronomy and Astrophysics* , **273** , 331
- 1993, Magazzù, A., Martín, E.L., Rebolo, R. “A Spectroscopic Test for Substellar Objects”, *The Astrophysical Journal*, **404** , L17
- 1993, Bouvier, J., Cabrit, S., Fernandez, M., Martín, E.L., Matthews, J.M. “COYOTES I: the photometric variability and rotational evolution of T Tauri stars”, *Astronomy and Astrophysics*, **272** , 176
- 1993, Bouvier, J., Cabrit, S., Fernandez, M., Martín, E.L., Matthews, J.M. “COYOTES I: multisite UBVR photometry of 24 pre-main sequence stars of the Taurus-Auriga cloud” *Astronomy and Astrophysics Suppl.*, **101**, 485
- 1993, Martín, E.L., Rebolo, R. “EK Ceph B: a test object for pre-ZAMS evolution of solar-type stars” *Astronomy and Astrophysics*, **274** , 274
- 1994, Martín, E.L., Rebolo, R., Magazzù, A., Pavlenko, Ya.V. “Pre-Main Sequence Lithium Burning I: Weak T Tauri Stars” *Astronomy and Astrophysics*, **282**, 503
1994. García López, R.J., Rebolo, R., Martín, E.L. “Pre-Main Sequence Lithium Burning II: Pleiades Low-Mass Stars”, *Astronomy and Astrophysics*, **282**, 518
- 1994, Martín, E.L., Magazzù, A. “A Herbig-Haro flow in HV Tau” *Astronomy and Astrophysics*, **287**, 571
- 1994, Lee, R., Martín, E.L., Mathieu, R. “Relative Lithium Abundances en Double-Lined Pre-Main Sequence Spectroscopic Binaries”, *Astronomical Journal*, **108**, 1445
- 1994, Martín, E.L., Rebolo, R., Casares, J., Charles, P.A. “Lithium Abundances in the Late-type Companions to Neutron Stars and Black-Hole candidates ” *The Astrophysical Journal*, **435**, 791

- 1994, Martín, E.L., Rebolo, R., Magazzù, A., “Constraints to the masses of brown dwarf candidates from the lithium test” *The Astrophysical Journal*, **436**, 262
- 1994, Martín, E.L., Spruit, H.C., van Paradijs J., “Energy implications of Li production in X-ray transients” *Astr. Astrophys.*, **291**, L43
- 1994, Lewis, J.R. et al. (Martín, E.L. among 34 co-authors), “Optical observations of supernova 1993J from La Palma. I. Days 2 to 125” *MNRAS*, **266**, L27
- 1995, Martín, E.L., Brandner, W. “On the evolutionary status of two very active visual binaries” *Astronomy and Astrophysics*, **294**, 744
- 1995, Bouvier, J., Covino, E., Kovo, O., Martín, E.L., Matthews, J.M., Beck, S.C. “COYOTES II: spot properties and differential rotation in T Tauri stars”, *Astronomy and Astrophysics*, **299**, 89
- 1995, Claret, A., Giménez, A., Martín, E.L. “A test case of stellar evolution: the eclipsing binary system EK Cephei” *Astronomy and Astrophysics*, **302**, 741
- 1995, Martín, E.L., Casares, J., Charles, P.A., Rebolo, R. “A search for lithium en cataclysmic binaries” *Astronomy and Astrophysics*, **303**, 785
- 1995, Pavlenko, Ya.V., Rebolo, R., Martín, E.L., Garcia Lopez, R.J. “Formation of lithium lines en very cool dwarfs” *Astronomy and Astrophysics*, **303**, 807
- 1995, Casares, J., Marsh, T.R., Charles, P.A., Martín, E.L., Harlaftis, E.T., Pavlenko, E.P., Wagner, R.M. “Doppler tomography of the X-ray transient J0422+32 during the Dec 1993 mini-outburst” *MNRAS*, **274**, 567
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- 1995, Neuhauser, R., Sterzik, M.F., Torres, G., Martín, E.L. “Weak line T Tauri stars south of Taurus” *Astronomy and Astrophysics*, **299**, L13
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- pre-main sequence lithium depletion” *Astronomy and Astrophysics*, **306**, 408
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- cluster α Persei” *The Astrophysical Journal*, **510**, 266
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- 1999, Neuhäuser, R., Comerón, F., Hearty, T., Martín, E. L., J.H.M.M. Schmitt, R. Supper, W. Voges, H. Zinnecker “Search for X-ray emission from brown dwarfs” *Astronomy and Astrophysics*, **343**, 883
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- 2000, Ardila, D., Martín, E. L. & Basri, G. “A survey for low-mass stars and brown dwarfs in the Upper Scorpius OB association”, *Astronomical Journal* , **120**, 479
- 2000, Doyle, L. R. et al. (TEP collaboration, Martín, E. L. among them) “Observational limits of terrestrial sized inner planets around the CM Draconis system using the photometric transit method via a matched-filter algorithm” *The Astrophysical Journal*, **535**, 338
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- 2001, Martín, E. L., Brandner, W., Jewitt, D. C., Simon, T., Wainscoat, R., Connelley, M., Marley, M. and Gelino, C., “Probing the Substellar Regime with SIRTf”, *PASP*, **113**, 529
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- 2004, Martín, E. L., Delfosse, X., & Guieu, S. "Spectroscopic identification of DENIS-selected brown dwarfs in the Upper Sco OB association", *The Astronomical Journal*, **127**, 449
- 2004, Barris, B., Tonry, J., et al. (Martín, E. L. among 22 coauthors) "Twenty-three high-redshift supernovae from the Institute of Astronomy Deep Survey ", *The Astrophysical Journal*, **602**, 571
- 2004, Kendall, T. R., Delfosse, X., Martín, E. L., Forveille, T. "Discovery of very nearby ultracool dwarfs from DENIS", *Astronomy and Astrophysics*, **416**, L17
- 2004, Zapatero Osorio, M. R. & Martín, E. L. "A CCD imaging search for wide metal-poor halo binaries", *Astronomy and Astrophysics*, in press
- 2004, Ménard, F., Dougados, C., Magnier, E., Duchene, G., Cuillandre, J.-C., Martín, E. L., Fahlman, G., Forveille, T., Lai, O., Manset, N., Martin, P., Veillet, C., and Magazzu, A. , "IRAS 04158+2805: A Low-Mass Star with an Edge-on Disk", *Astronomy and Astrophysics*, submitted

Talks in International Scientific Meetings

- 1992, Martín, E. L. **Spectroscopy of Brown Dwarf Candidates**, in Isaac Newton Group Users Meeting, Gemini, 38, 10 *Contributed Talk*

- 1994, Martín, E. L., **Binariness among Herbig Ae/Be stars**, in “First International Symposium on the nature and evolution of Herbig Ae/Be stars”, eds The, P.S. & Pérez, M., ASP conf. series, p. 315 *Invited Talk*
- 1995, Martín, E. L. **Evidence for Particle Acceleration and Nuclear Reactions around Compact Relativistic Objects**, in “17th Texas Symposium on Relativistic Astrophysics and Cosmology”, ed Bohringer, H., Morfill, G.E., Trumper, J., Annals of the New York Academy of Science, 759, p. 332 *Invited Talk*
- 1995, Martín, E. L., Rebolo, R., Zapatero-Osorio, M. R. **Faint companions to G/K halo subdwarfs**, in “The Bottom of the Main Sequence – and Beyond”, ed Tinney, Ch., ESO Astrophysics Symposia, p. 253 *Contributed Talk*
- 1997, Martín, E. L., Zapatero-Osorio, M. R., Rebolo, R., **Prospects of Brown Dwarf Detection by Near-IR surveys (DENIS, 2MASS)**, in “The Impact of Large Scale Near Infrared Surveys”, Euroconference, April 1996, Puerto de la Cruz (Spain), ed. F. Garzón et al., Kluwer Academic Publishers, Vol. 210, p. 149 *Invited Review*
- 1997, Martín, E. L., **Lithium in pre-main sequence stars and young open clusters**, in “Cool Stars in Clusters and Associations: Magnetic Activity and Age Indicators”, May 1997, Palermo (Italy), eds G. Micela, R. Pallavicini, S. Sciortino, MemSAIt, 68, 905 *Invited Review*
- 1998, Martín, E. L., Zapatero-Osorio, M. R., Rebolo, R. “The Substellar Initial Mass Function in the Pleiades”, in “Brown Dwarfs and Extrasolar Planets”, eds R. Rebolo, E. L. Martín, M. R. Zapatero-Osorio, ASP Conf. Series Proc., Vol. 134, p. 507 *Invited Talk*
- 1998, Martín, E. L., **Spectroscopy of Very Low-Mass Stars and Brown Dwarfs in Young Open Clusters**, in “Very Low-Mass Stars and Brown Dwarfs in Stellar Clusters and Associations”, La Palma (Spain), eds R. Rebolo & M. R. Zapatero Osorio, Cambridge University Press, in press *Invited Review*
- 1999, Martín, E. L., **The L Spectral Type: A New Class of Dwarfs Cooler than M**, in “From Giant Planets to Cool Stars”, held on June 8-11, 1999 in Flagstaff, Arizona, USA, *Invited Review*, ASPC Conf. Ser. 212, p. 38
- 1999, Martín, E. L., **Brown dwarfs and the lithium test**, in “Gordon Research Conference on the Origins of Solar Systems”, held on June 13-18, 1999 in Henniker, New Hampshire, USA, *Invited Review*
- 1999, Martín, E. L., **Light element abundances in cool stars**, in “11th Cambridge Workshop on Cool Stars, Stellar Systems and the Sun”, held on October 4-8, 1999 in Tenerife, Canary Islands, Spain *Invited Talk*
- 1999, Stauffer, J. R., Jeffries, R. D., Martín, E. L. & Terndrup, D. M. **Ages, Distances, and the Initial Mass Functions of Stellar Clusters**, in “11th Cambridge Workshop on Cool Stars, Stellar Systems and the Sun”, held on October 4-8, 1999 in Tenerife, Canary Islands, Spain *Joint Discussion*
- 2000, Martín, E.L., Kulkarni, S., Koresko, C., Lane, B. & Wizinowich, P. **A search for brown dwarf companions using the Keck adaptive optics facility**, in “195th Meeting of the American Astronomical Society”, held on 11–15 January in Atlanta,

USA. *Invited Talk*, AAS, 195, 2466

- 2000, Martín, E.L. **Binary brown dwarfs**, in “Disks, Planetesimals and Planets”, held on 24–28 January in Puerto de la Cruz, Tenerife, Spain. *Contributed Talk*
- 2000, Martín, E.L., & Basri, G. **Multiplicity among very low mass stars and brown dwarfs**, in “IAU Symposium 200: The Formation of Binary Stars”, held on 10–15 April in Potsdam, Germany. *Invited Review*
- 2000, Martín, E.L. **Spectroscopy of young brown dwarfs and isolated planetary mass objects**, in “IAU General Assembly: Ultracool Dwarfs Joint Discussion”, held on 12 August in Manchester, United Kingdom. *Invited Review*
- 2001, Martín, E.L. **From Brown Dwarfs to Planets**, in “Second Granada Workshop: The Evolving Sun and its Influence on Planetary Environments”, held on 18–20 June in Granada, Spain. *Invited Review*
- 2001, Martín, E.L. **The End of Stellar Activity: XMM-Newton Observation of a Nearby Brown Dwarf**, in “JENAM 2001. Mini-Symposium 7. Magnetic Activity in Stellar Evolution”, held on 13–14 September in Munich, Germany. *Contributed Talk*
- 2003, Martín, E.L. **Observed Properties of Binary Brown Dwarfs**, in “RTN Meeting: Young Brown Dwarfs and the Substellar Mass Function”, held on 8–10 September in Cambridge, England. *Invited Review*
- 2003, Martín, E.L. **Otros Mundos: Enanas Marrones y Exoplanetas**, in “Comunicando Astronomia en Hispanoamerica”, held on 24–26 September in Arecibo Observatory, Puerto Rico, USA. *Invited Review*

IAU Circulars

- 1994, Martín, E. L., Serra-Ricart, M., report on the X-ray transient and black hole candidate GRO J0422+32, IAU Circular No. 5917
- 1994, Zapatero-Osorio, M. R., Martín, E. L., Serra-Ricart, M., report on the X-ray transient and black hole candidate GRO J0422+32, IAU Circular No. 5921
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- 1996, Martín, E. L., Deeg, H., report on the eclipsing binary CM Draconis, IAU Circular No. 6425
- 1996, Martín, E. L., report on Nova Sagittarii 1996, IAU Circular No. 6450
- 1997, Filippenko, A., Martín, E. L., report on unusual supernova in the galaxy UGC 4107, IAU Circular No. 6783
- 1998, Deeg, H., Doyle, L., Jenkins, J., Martín, E. L., report on the eclipsing binary CM Draconis, IAU Circular No. 6875

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Non Refereed Scientific Journals and Contributions to Conference Proceedings

- 1991, Schneider, J., Chevreton, M. & Martín, E. L. “New Efforts in the Search for Extrasolar Planets”, *ESA-SP*, 315, 67
- 1991, Magazzù, A., Rebolo, R. & Martín, E. L. “Very Low Mass Stars and Lithium Abundances: the case of UX Tau C”, *Mem. Soc. Ast. It.*, 181
- 1992, Martín, E. L., Rebolo, R. & Magazzù, A., “A comparative study of lithium abundances, radial velocities and emission lines in pre-main sequence visual binaries”, in “Complementary Approaches to Double and Multiple Star Research”. eds McAlister, H. & Hartkopf, W.I., *ASP* 32, 63
- 1992, Martín, E. L. & Rebolo, R., “A CCD optical search for visual very low-mass companions of halo stars”, in “Complementary Approaches to Double and Multiple Star Research”. eds McAlister, H. & Hartkopf, W.I., *ASP* 32, 336
- 1993, Martín, E. L., Rebolo, R., García López, R., Magazzù, A. & Pavlenko, Y. 1993, “Observational patterns of pre-main sequence lithium depletion”, in “Inside the Stars”, eds Weiss, W. & Baglin, A., *ASP* 40, 165
- 1993, Rebolo, R., Martín, E. L. & Magazzù, A. 1993, “A search for lithium in brown dwarf candidates”, in “Inside the Stars”, eds Weiss, W. & Baglin, A., *ASP* 40, 171
- 1993, García López, R.J., Martín, E. L., Rebolo, R., Magazzù, A., Beckman, J.E., McKeith, C. & Webb, J.K., 1993, “Beryllium abundances in stars with a range of metallicities”, in “Inside the Stars”, eds Weiss, W. & Baglin, A., *ASP* 40, 180
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- 1995, Rebolo, R., Magazzù, A., Martín, E. L. “Halo Brown Dwarfs and Primordial Lithium”, in “Stellar and Interstellar Lithium and Primordial Nucleosynthesis”, ed F. Spite and R. Pallavicini, Mem. Soc. Ast. It., 66, p. 375
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- 1995, Rebolo, R., Martín, E. L., “Lithium in companions to compact objects”, in “The Light Elements Abundances”, ed Crane, P., ESO Astrophysics Symposia, p. 315
- 1996, Neuhauser, R., Magazzù, A., Sterzik, M., Alcalá, J.M., Torres, G., Martín, E. L. “Are there run-away T Tauri stars in Taurus?” in “Cool Stars, Stellar Systems, and the Sun”, vol. 9, eds. R. Pallavicini and A.K. Dupree, ASP Conf. Series Proc. 109, 433
- 1996, Martín, E. L., Zapatero-Osorio, M. R., Rebolo, R. “Rotation periods in very cool dwarfs” in “Cool Stars, Stellar Systems, and the Sun”, vol. 9, eds. R. Pallavicini and A.K. Dupree, ASP Conf. Series Proc. 109, 615
- 1996, Zapatero-Osorio, M. R., Rebolo, R., Martín, E. L. “Deep R,I CCD Photometry in the Pleiades: Teide 1 and new brown dwarf candidates” in “Cool Stars, Stellar Systems, and the Sun”, vol. 9, eds. R. Pallavicini and A.K. Dupree, ASP Conf. Series Proc. 109, 731
- 1996, Martín, E. L. “Spectroscopy of Pleiades Brown Dwarfs” in “Molecules in Astrophysics. Probes and Processes”, Abstract Book, IAU Symposium 178, eds. D.J. Jansen et al., p. 269
- 1996, Gallegos, J.E., Rebolo, R., Zapatero Osorio, M. R. & Martín, E. L. “Free floating Brown Dwarfs in the Pleiades” in “18th Texas Symposium on Relativistic Astrophysics and Cosmology”, World Scientific Publishing, Co., Eds., Olinto, A.V., Frieman, J.A.,

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- 1998, Leech, K., Altieri, B., Claes, P., Laureijs, R., Martín, E. L., Metcalfe, L., Prusti, T., Rebolo, R., Salama, A., Siebenmorgen, R., Trams, N., Zapatero-Osorio, M. R., “Infra-Red Space Observatory Observations of the Pleiades Brown Dwarfs Teide 1 and Calar 3”, in “Brown Dwarfs and Extrasolar Planets”, eds R. Rebolo, E. L. Martín, M. R. Zapatero-Osorio, ASP Conf. Series Proc. 134, 93
- 1998, Zapatero-Osorio, M. R., Rebolo, R., Martín, E. L., Hodking, S.T., Jameson, R.F., Cossburn, M. R., Magazzù, A., Basri, G., Steele, I.A. “Revealing the Substellar Population in the Pleiades Open Cluster”, in “Brown Dwarfs and Extrasolar Planets”, eds R. Rebolo, E. L. Martín, M. R. Zapatero-Osorio, ASP Conf. Series Proc. 134, 61
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- 1998, Balachandran, S. C., García López, R. J., Kraft, R. P., McGregor, K. B., Barnes, G., Martín, E. L. & Pinsonneault, M. H. “Mixing in low-mass stars: The lithium rotation connection”, in “The Tenth Cambridge Workshop on Cool Stars, Stellar Systems and the Sun”, J.A. Bookbinder and R. Donahue, ASP Conf. Ser. 154, 111
- 1998, Bouvier, J., Stauffer, J., Martín, E. L. “Results of a deeper, wider area brown dwarf search in the Pleiades”, in “The Tenth Cambridge Workshop on Cool Stars, Stellar Systems and the Sun”, J.A. Bookbinder and R. Donahue, ASP Conf. Ser. 154, 1828
- 1998, Caillault, J.-P., Briceño, C., Martín, E. L., Palla, F., Wichmann, R. “The ROSAT field sources – What are they?”, in “The Tenth Cambridge Workshop on Cool Stars, Stellar Systems and the Sun”, J.A. Bookbinder and R. Donahue, ASP Conf. Ser. 154, 237
- 1998, Magazzù, A., Umana, G., Martín, E. L. “Radio Observations of T Tauri stars south of Taurus-Auriga”, in “The Tenth Cambridge Workshop on Cool Stars, Stellar Systems

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- 1998, Randich, S., Martín, E. L., García López, R., Pallavicini, R. “Lithium in new α Per candidates discovered by ROSAT”, in “The Tenth Cambridge Workshop on Cool Stars, Stellar Systems and the Sun”, J.A. Bookbinder and R. Donahue, ASP Conf. Ser. 154, 2136
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- 1999, Barrado y Navascués, D., Stauffer, J. R., Bouvier, J., & Martín, E. L. “The mass function at the end of the main sequence: The M35 open cluster” *Astrophysics and Space Science*, **263**, 303
- 1999, Martín, E. L.; Kulkarni, S.; Koresko, C.; Lane, B.; Wizinowich, P., “A Search for Brown Dwarf Companions Using the Keck Adaptive Optics Facility”, *AAS*, **195**, 9303.
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- 2001, Martín, E. L.; Connelley, M. “Searching for Jovian planets around brown dwarfs and white dwarfs”, *DPS*, **33**, 6003.
- 2001, Martín, E. L.; Bouy, H. “The End of Stellar Activity: XMM-Newton Observation of a Nearby Brown Dwarf”, *AGM*, **18S**, 0711.
- 2001, Martín, E. L.; Dougados, C.; Magnier, E.; Menard, F.; Magazzu, A. “Brown Dwarfs in Taurus: Clues to the Formation of Substellar Objects”, *AGM*, **18**, P27.
- 2003, Bouy, H.; Brandner, W.; Martín, E. L.; Delfosse, X.; Allard, F.; Basri, G. “Multiplicity of ultracool dwarfs in the field”, *SF2A-2003, EdP Sciences Conf Series*, 238.
- 2003, Delfosse, X.; Forveille, T.; Martín, E. L.; Marchal, L.; Borsengerger, J.; Epchtein,

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- 2003, Magnier, E. A.; Dougados, C.; Ménard, F.; Martín, E. L.; Magazzù, A. “A Deep Photometric Search for Substellar Mass Objects in Taurus”, *IAUS*, **211**, 71.
- 2003, Osborne, S. L.; Jameson, R. F.; Dobbie, P. D.; Martín, E. L. “A Large, Deep Survey of the Taurus Dark Clouds”, *IAUS*, **211**, 79.
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- 2003, Bouy, H.; Brandner, W.; Martín, E. L.; Delfosse, X.; Allard, F.; Basri, G. “Multiplicity of Nearby Free-floating Late M and L Dwarfs: HST-WFPC2 Observations of Candidate and Bona Fide Binary Brown Dwarfs”, *IAUS*, **211**, 245.
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- 2003, Ftaclas, C.; Martín, E. L.; Toomey, D. “Searching for Ultracool Companions with NICF”, *IAUS*, **211**, 521.
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- 2003, Pavlenko, Y. V.; Martín, E. L.; Basri, G.; Lyubchik, Y. “Abundances in Wide Binaries with Solar Twin Components”, *IAUS*, **219**, 87.

Public outreach

- 1993, Martín, E. L., *Investigación y Ciencia*, 196, 35
- 1996, Martín, E. L., *Geo*, 113, 112
- 1996, Zapatero-Osorio, M. R., Rebolo, R., Martín, E. L., “Las Primeras Enanas Marrones” *Tribuna de Astronomía*, 132, 12
- 1996, Martín, E. L., “La Búsqueda de Nuevos Planetas” *ABC newspaper*, Science supplement, September 6, 1996, p. 49
- 1994–97, Several contributions to the News Bulletin of the Instituto de Astrofísica de Canarias
- 1997, Martín, E. L., Rebolo, R., Zapatero-Osorio, M. R., “The Discovery of Brown Dwarfs”, *American Scientist*, 85, 522

1999, Vázquez, M., Martín, E. L. “La Búsqueda de Vida Extraterrestre”, Book in Spanish language. *Serie McGraw-Hill de Divulgación Científica*.

Teaching Experience

Lecturer of the summer university course “Estrellas de Principio a Fin” 5–8 July 1993 in Los Llanos de Aridane, La Palma (Spain).

1995–97, Lecturer of two doctoral courses (40 hours) on the subject “Formation and early evolution of low-mass stars and substellar objects” at the University of La Laguna (Spain)

Lecturer of the Universidad Internacional Menéndez Pelayo astrophysics course “Planetas en otras Estrellas” 11–14 August 1997 in Santander (Spain)

Invited Speaker at the “XIII Jornadas Estatales de Astronomía” 1–10 July 1997, La Laguna (Spain)

1993–97, Several talks about Astronomical Highlights in schools of the Canary Islands

1998–99, Participant in the Project ASTRO, sponsored by the Astronomical Society of the Pacific (USA)

2002, Invited lecturer and participant in the Project TOPS, sponsored by the NASA

Summer 1998, Lecturer of two courses (120 hours, 3 months) of “Astronomy 10: Introduction to General Astronomy” in the University of California at Berkeley (USA)

1997–2000, Co-director (with Dr. Rafael Rebolo) of the PhD student Víctor Sánchez Béjar, University of La Laguna.

2000–2003, Member of the Thesis Advisory Committee of graduate students Brian Barris, Mike Cushing, and Scott Sheppard, University of Hawaii.

2000, Member of the Thesis committee of graduate student Damien Segransan (rapporteur), University of Grenoble.

2003, Member of the Thesis committee of graduate student Phan Bao (examineur), University of Paris VI.

Spring 2001 and 2003 (10 months total), Lecturer of “Astronomy 110: Survey of Astronomy” in the University of Hawaii (USA)

Spring 2002 (5 months), Lecturer of “Astronomy 622: Interstellar medium”, graduate course at the University of Hawaii (USA)

Spring 2003 and 2004 (20 hours), Lecturer of “Exoplanetas”, graduate seminar at the University of La Laguna (Spain)

April 2004 (3 hours), Lecturer of “Bioastronomia”, general course at the Real Sociedad de Amigos del Pais, La Laguna (Spain)

Instrument/Telescope Developing Experience

1991-93, Member of the team that developed and commissioned the high-resolution optical spectrograph IACUB, which is now a common-user instrument at the 2.5 m Nordic Optical Telescope in the Observatorio del Roque de los Muchachos (La Palma)

1997-1999, Member of the scientific team of the mid-infrared (8–20 μm) camera and spectrograph Canari-Cam for the 10 m telescope (GTC) to be located in the Observatorio del Roque de los Muchachos (La Palma)

1999-2003, Member of the scientific team of the Near Infrared Coronagraphic Imager (NICI) for the 8 m Gemini South telescope

2001-2003, Member of the CFHT/WIRCAM steering group

2003-, Member of the OPTICON European Large Telescope science case team

2004-, Chair of the NAHUAL project; a high-resolution near-infrared spectrograph for the 10.4-meter GTC.

2004-, Co-investigator of Adaptive Optics instrumentation group for the 10.4-meter GTC.

Service to the community

1997, Member of the Local Organizing Committee of the International Workshop “Brown Dwarfs and Extrasolar Planets” (Puerto de la Cruz, Tenerife, Spain, March 17–21, 1997), and co-editor of the proceedings book, Volume 134 of the A.S.P. Conf. Proc. Series

2003, Member of the Scientific Organizing Committee of the PUEO-NUI adaptive optics workshop held in Grenoble in May 2003

2004, Member of the Scientific Organizing Committee of the Bioastronomy Symposium to be held in Iceland in July 2004

1994-96, Member of the Time Allocation Committee for the international telescopes of the Canary Islands Observatories

2001-2003, Member of the University of Hawaii Time Allocation Committee for the international telescopes of the Mauna Kea Observatory

2000-, University of Hawaii representative at the Canada-France-Hawaii Telescope Scientific Advisory Council

2001-, Chairman of the Scientific Organizing Committee of IAU Symposium 211, and editor of the book of proceedings.

Since 1997, Member of the International Astronomical Union (Commissions 26 and 51)

1995–2003, Scientific referee for the British (PATT), Spanish (CAT) and Italian (Galileo) Time Allocation Committees of the telescopes in the Canary Islands

1996–2003, Scientific referee for the journals “Astronomy and Astrophysics”, “Monthly Notices of the Royal Astronomical Society”, “Science”, “Astronomical Journal”, “The Astrophysical Journal” and “The Astrophysical Journal Letters”

1993–2003, Colloquium speaker in several education and research institutions in Australia, France, Germany, Great Britain, Holland, Israel, Mexico, Spain, Switzerland and the United States

2001–2003, Scientific referee for NSF grant proposals, Chandra peer review, and TPF foundation science proposals.

2002–2003, member of the NASA Keck Telescope Allocation Committee.

Since 1995, Member No. 176 of the Spanish Astronomical Society

Since 1995, Member No. 22642 of the American Astronomical Society

Principal Investigator of Research grants

- 1995–97, Coordinator of the research project **Low-Mass Stars, Brown Dwarfs and Extrasolar Planets** of the Instituto de Astrofísica de Canarias.
- Duration: 02/01/00-01/31/02; Total=37,575 USD, STScI, Title:” An Infrared Search for Substellar Companions to very Low-mass Pleiades”
- Duration: 08/01/00-07/31/02; Total=53,553 USD, STScI, Title:” Multiplicity among Very-Low Mass Stars and Brown Dwarfs in Alpha Persei and the Pleiades”
- Duration: 09/01/00-08/31/03; Total=50,477 USD, STScI, Title:” Masses and Multiplicity of Nearby Free-floating Methand and L Dwarfs”
- Duration: 09/01/00-08/31/03, Total=30,000 USD, NASA, Title:” Search for X-Ray Emission in the Nearest Known Brown Dwarf”
- Duration: 07/01/01-06/30/04, Total=79,748 USD, STScI, Title:” Fundamental Properties of L-Type Dwarfs in Binaries”
- Duration: 12/15/01-12/14/03, Total=22,530 USD, NASA, Title:” Origins, Evolution, and Fate of Brown Dwarfs”
- Duration: 11/15/01-11/15/05, Total=234,239 USD, NSF, Title:” Detection and Characterization of Brown Dwarfs and Free-Floating Planets”
- Duration: 3/1/02-3/1/04, Total=61,300 USD, STScI, Title:” ACS Imaging and STIS Spectroscopy of Binary Brown Dwarfs”
- Duration: 3/1/02-3/1/04, Total=23,800 USD, STScI, Title:” Brown Dwarf Binaries as Tests of Substellar Evolution”
- Duration: 3/1/02-3/1/04, Total=43,500 USD, STScI, Title:” Fundamental Properties of L-Type Dwarfs in Binaries”
- 2004-, Coordinator of the research project **Bioastronomy** of the Instituto de Astrofísica de Canarias.

Statement of Research Interests

- Bioastronomy: The search for extraterrestrial life. Understanding the origins and evolution of life in the Universe.
- Characterization of the fundamental properties (age, gravity, metallicity, temperature) of brown dwarfs by means of optical and infrared photometry and spectroscopy.
- Observations and understanding of the chromospheric and coronal activity of very low-mass stars and brown dwarfs by means of X-ray, optical and radio observations.
- Discovery of the first brown dwarf binaries by means of high spatial resolution techniques (adaptive optics, interferometry, Hubble space telescope).
- Determination of the binary frequency of brown dwarfs and the distribution of orbital periods and eccentricities in different environments (field, open clusters, star forming regions). Relationship to star and planet formation.
- Direct mass determinations of brown dwarfs in binaries.
- Studies of pre-main sequence low-mass stars. Accretion in T Tauri stars and FUORs. Identification of post T Tauri stars.
- Observational tests to stellar and substellar evolution models.
- The Initial Mass Function. Is it Universal? Does it have a low-mass cutoff?
- Chemical evolution of galaxies
- Studies of galactic open clusters and OB associations. Relations between high mass stars, low-mass stars, and brown dwarfs. The method of lithium dating of open clusters and its implications on the ages of OB stars.
- The problem of the baryonic dark matter. Is it hidden in low-luminosity compact objects like white dwarfs or brown dwarfs?
- The origin and evolution of low-mass black hole binaries. Are they young? Did they come from hypernovae? Do they produce gamma ray-bursts?
- Nucleosynthesis of light elements in the Universe. Do black holes produce large amounts of deuterium, lithium and beryllium? What is the origin of lithium-rich giants? Is the halo lithium plateau primordial?
- Detection of extrasolar planets and exo-zodiacal dust. Is the solar system a typical planetary system? What fraction of stars have planets? How do planets form? What are the initial conditions of star formation that determine the mass of the planets?
- Science applications of infrared instrumentation, wide-field imaging, adaptive optics and interferometry.