

May 27, 2003

**CURRICULUM VITAE****Name:**

Mayra Osorio

**Place and Date of Birth:**

San Andrés Tuxtla, Veracruz, Mexico; June 7, 1969.

**Country of Citizenship:**

Mexico

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**Present Position:**

Short-term appointment at the Instituto de Astrofísica de Andalucía (from December 2002 to June 2003).

**Academic Degrees:**

B.S. (Physics) Universidad Veracruzana, México, 1990.

M.Sc. (Astronomy) Universidad Nacional Autónoma de México (UNAM), 1995.

Ph.D. (Astronomy) Universidad Nacional Autónoma de México (UNAM), 2000.

**Main Area of Research:**

Massive Star Formation, Radiative Transfer, Radio Astronomy

**Past Positions:**

Secondary Education Teacher, 1990–1991.

Predoctoral Research Fellow (Instituto de Astronomía, UNAM), 1993–2000.

Postdoctoral Research Fellow (Harvard-Smithsonian Center for Astrophysics Observatory), 2001–2002.

**Grants and Scholarships:**

Consejo Nacional de Ciencia y Tecnología (Mexico) Master's scholarship, 1993–1995.

Dirección General de Estudios de Posgrado de la UNAM Doctoral scholarship, 1996–1998

Consejo Nacional de Ciencia y Tecnología (Mexico) research grant, 1999–2000.

Consejo Nacional de Ciencia y Tecnología (Mexico) Postdoctoral Fellowship, 2001

Origins of Solar Systems Grant NAG5-9670 research grant, 2002

IAU Travel Grant to attend IAU Colloquium 191, 2003

**Honours and Awards:**

“Weizmann Prize 2002” of the Mexican Academy of Sciences to the best Ph.D. Thesis in the area of Exact Sciences.

**Courses Offered:**

High School Courses: Physics

**Additional Information:**

Has received more than 40 citations in the international literature. In particular, the paper by Osorio, Lizano & D’Alessio (1999) have received more than 30 citations in the main journals, including Science, Nature and the Annual Review of Astronomy and Astrophysics.

Has given about 10 talks, both at national and international level.

Observational experience with the Very Large Array (NRAO), 2.1-m telescope at San Pedro Mártir (UNAM), 30-m radiotelescope at Pico Veleta (IRAM).

**Conferences Attended:**

1. Star Formation with the Infrared Space Observatory (24-26 June 1997), Lisbon, Portugal
2. XII Annual Meeting in Astronomy (16-15 October 1997), México D.F., Mexico
3. NATO ASI Physics of Star Formation and Early Stellar Evolution (24 May-5 June 1998), Heraklion, Greece
4. XIII Annual Meeting in Astronomy (3-8 November 1999), México D.F., Mexico
5. 199th. Meeting of the American Astronomical Society (6-10 January 2002), Washington, D.C., USA
6. 16th UCL Astronomy Colloquium “The chemically controlled cosmos” (15-18 July 2002), London, UK
7. Winds, Bubbles and Explosions (9-13 September 2002), Pátzcuaro, Michoacán, Mexico
8. The Environments and Evolution of Double and Multiple Stars (3-7 February 2003), Mérida, Yucatán, Mexico
9. Magnetic Fields and Star Formation: Theory versus Observations (21-25 April 2003), Madrid, Spain

**Refereed Publications:**

1. Carral, P., Kurtz, S., Rodríguez, L. F., Martí, J., Lizano, L., Osorio, M. 1999, “VLA Continuum Observations of Suspected Massive Hot Cores”, *Revista Mexicana de Astronomía y Astrofísica*, 35, 97-108.
2. Lizano, S., Osorio, M. 1999, “Hot Molecular Cores, Sites of High Mass Star Formation”, IAU Symposium 193 “Wolf-Rayet Phenomena in Massive Stars and Starburst Galaxies”, eds. K. A. van der Hucht, G. Koenigsberger & P. R. J. Eenens, San Francisco: Astr. Soc. Pacific, 559-567.

3. Osorio, M., Lizano, S., D'Alessio, P. 1999, "Hot Molecular Cores and the Formation of Massive Stars", *The Astrophysical Journal*, 525, 808-820. \*
4. Osorio, M. 2000, "Núcleos Moleculares Calientes y la Formación de las Estrellas Masivas", Ph.D. Thesis, Universidad Nacional Autónoma de México
5. Estalella, R., Palau, A., Girart, J. M., Beltrán, M. T., Osorio, M., Anglada, G., P.T.P. 2003, "The dust envelope of L723 at submillimeter", to be submitted to *Astronomy & Astrophysics*
6. Osorio, M., D'Alessio, P., Muzerolle, J., Calvet, C., Hartmann, L. 2003, "A Comprehensive Study of the L1551 IRS 5", *The Astrophysical Journal*, 586, 1148-1161. \*
7. Osorio, M., Anglada, G., Lizano, S., D'Alessio, P. 2003, "A Model for the Ammonia Line Emission in the G31.41+0.31 Hot Molecular Core", to be submitted *The Astrophysical Journal*.

#### Publications in conference proceedings:

1. González, J.J., Lizano, S., Osorio, M. 1994, "Tidal Torques and the Angular Momentum of Elliptical Galaxies", *Bulletin of the American Astronomical Society*, 26
2. Osorio, M., Calvet, C., D'Alessio, P., Hartmann, L., Muzerolle, J. 2001, "A composite Model for L1551 IRS 5", *Bulletin of the American Astronomical Society*, 33, 1395.
3. Osorio, M., D'Alessio, P., Muzerolle, J., Calvet, C., Hartmann, L. 2003, "Modelling the Emission of the L1551 IRS5 Binary System at Different Scales", *Revista Mexicana de Astronomía y Astrofísica (Ser. de Conf.)*, 15, 204.
4. Osorio, M., D'Alessio, P., Muzerolle, J., Calvet, N., Hartmann, L. 2003, "Modelling the Dust Emission of the L1551 IRS5 Binary System", *Revista Mexicana de Astronomía y Astrofísica (Ser. de Conf.)*, in press
5. Osorio, M., Anglada, G., Lizano, S., D'Alessio, P. 2003, "Modelling the Dust and Ammonia Emission in the G31.41+0.31 Hot Molecular Core", *Revista Mexicana de Astronomía y Astrofísica (Ser. de Conf.)*, 15, 142.
6. Osorio, M., Anglada, G., Lizano, S., D'Alessio, P. 2003 "A Model to Test the Internal Structure of the G31.41+0.31 Hot Core", *Astrophysics and Space Science*, in press