

Dr. Rodrigo Parra

CONTACT INFORMATION	Dept. of Astronomy and Astrophysics Pontificia Universidad Católica Campus San Joaquín Casilla 306, Santiago 22, Chile	<i>Phone:</i> +56 (2) 354 4945 <i>Fax:</i> +56 (2) 354 4948 <i>email:</i> rparra@astro.puc.cl
EDUCATION	Ph.D. in Radio Astronomy Jan 2003–Jul 2007, <i>Onsala Space Observatory, Sweden</i> Principal Advisor: Prof. John E. Conway (OSO) Thesis Opponent: Prof. Alan Pedlar (JBO) <ul style="list-style-type: none">• Dissertation Topic: “Compact Radio Sources in Luminous Infrared Galaxies”• I spent one month as a visiting scientist at the University of Kentucky invited by Prof. Moshe Elitzur M.Sc. in Digital Communications Systems Sep 2001–Oct 2002, <i>Chalmers Tekniska Högskola, Sweden</i> <ul style="list-style-type: none">• Major in RF Engineering Ingeniería Civil en Electrónica (Electrical Engineering 6 years track) Mar 1993–Dec 1998, <i>Universidad Técnica Federico Santa María, Chile</i> <ul style="list-style-type: none">• Major in RF Telecommunications Systems	
HONORS AND AWARDS	<ul style="list-style-type: none">• 2008, Awarded an ALMA-CONICYT grant.• 2007, Awarded a two year FONDECYT Postdoctoral Research Grant.• 2001, Awarded a two year Swedish Foundation for international Cooperation in Research and Higher Education (STINT) Fellowship.	
PROFESSIONAL EXPERIENCE	2008/02–Present CONICYT , Santiago, Chile <i>APEX Support Astronomer</i> 2007/08–Present Pontificia Universidad Católica , Santiago, Chile Postdoctoral Researcher 1999/07–2001/05 ENTEL , Santiago, Chile <i>Service Engineer</i> 1999/01–1999/05 Telefónica , Santiago, Chile <i>Research Assistant</i>	
REFEREED PUBLICATIONS	I “ <i>The Radio Spectra of the Compact Sources in Arp 220: A Mixed Population of Supernovae and Supernova Remnants.</i> ” R. Parra, J. E. Conway, P. J. Diamond, H. Thrall, C. J. Lonsdale, C. J. Lonsdale and H. E. Smith. <i>ApJ</i> 659 p314, 2007 (12 refereed citations in one year) II “ <i>A Compact Starburst Ring Traced by Clumpy OH Megamaser Emission</i> ” R. Parra, J. E. Conway, M. Elitzur and Y. M. Pihlström. <i>A&A</i> 443 p383, 2005 III “ <i>A Thin Ring Model for the OH Megamaser in III Zw 35</i> ” R. Parra, J. E. Conway, M. Elitzur. <i>Ap&SS</i> 295 p325, 2005 IV “ <i>COLA III, Radio Continuum Observations of the Northern Sample; Evidence for Low Luminosity AGN in Compact Starbursts</i> ” R. Parra, J. E. Conway, P. N. Appleton, R. P. Norris, Y. M. Pihlström. and L. J. Kewley. Submitted to <i>ApJ</i> . Available at: www.astro.puc.cl/~rparra/FTP/PAPER_IV.PDF	

PAPERS IN
PREPARATION

V “*Continuum and Spectral Line Radiation Propagation in a Random Clumpy Medium*”
J. E. Conway, M. Elitzur M. and R. Parra. To be submitted to ApJ. Available at:
www.astro.puc.cl/~rparra/FTP/PAPER_V.PDF

VI “*Detection of the H29 α Recombination Line in NGC253*”
R. Parra, P. C. Cortes, J. R. Cortes, J. E. Conway and C. Agurto. To be submitted
to ApJL (May 2008).

VII “*The Massive Star Forming Region:G30.79 FIR 10*”
P. C. Cortes, R. Parra, J. R. Cortes. To be submitted to ApJ (Jun 2008).

VIII “*Submillimeter Galaxies in the ECDF-South*”
P. C. Cortes, J. R. Cortes, R. Parra, E. Gawiser and P. Aguirre. in preparation.

IX “*The 18 cm lightcurves of the compact sources in Arp 220*”
H. Thrall, P. J. Diamond, R. Parra, J. E. Conway, C. J. Lonsdale, C. J. Lonsdale and
H. E. Smith. To be submitted to ApJ.

X “*15 GHz Observations of the Compact Sources in Arp 220*”
R. Hurley, J. E. Conway and R. Parra. To be submitted to ApJ.

SELECTED
CONFERENCE
PRESENTATIONS

“*A Compact Starburst Ring Traced by Clumpy OH Megamaser Emission*” in Astrophys-
ical masers and their environments. IAU symposium 242, March 2007, Alice Springs,
Australia

“*Radio Observations of the Compact Starburst in Arp 220*” in Exploring the universe
with the real-time VLBI. 8th EVN symposium 2006, Torun, Poland

“*A Thin Ring Model for the OH Megamaser in IIIzw35*” in Dense Molecular Gas
Around Protostars and in Galactic Nuclei. European Workshop on Astronomical
Molecules 2004, Zwolle, The Netherlands.

TEACHING
EXPERIENCE

Pontificia Universidad Catolica, Chile

- 2008: Teacher of the “Introduction to Radio Astronomy” course for grad students.
- 2007: I gave 2 lectures on Radio Astronomy and Interferometry

Chalmers University of Technology, Sweden

- 2006: Followed the course *Teaching and Evaluation in Higher Education*.
- 2004–2005: T.A. of the Image processing lab sessions.
- 2004–2005: T.A. of the Interferometry Course.

Universidad Catolica de Valparaiso, Chile

- 1999: I gave a 5 lecture seminar to M.Sc. students on the application of Fourier
techniques to time series from oceanographic data.

Universidad Tecnica Federico Santa Maria, Chile

- 1994–1998: T.A. of the Antenna and communications systems lab.
- 1995: T.A. of Calculus in many variables.

COMPUTER SKILLS

- **Astronomical Software:** AIPS (both classic and ++), Difmap, MIRIAD, GILDAS,
CASA, SCHED, Observe, ParselTongue (Python), CLASS, XS, MOPSI and my own
collection of specialized scripts for the calibration and reduction of single dish and
interferometer data.
- **Programing Languages:** C++, Perl, Python and shell scripts. I am also an
advanced user of the POV-ray raytracer. Very advanced MATLAB (Octave, IDL)
programmer.
- Use of Linux systems at administrator level.

MISCELLANEOUS

- Approved Altitude Test (I have been working several occasions at the APEX site.)
- Official driver of the Onsala Space Observatory student's van. I drove the van daily (loaded with up to seven students) from the city to the observatory and back (42+42 km) for almost four years. I have a swedish driver's license.
- Projectionist apprentice at one of the Göteborg's cinematheque theaters (Hagabion).
- I am a very sociable person and I have no problem in getting along with people with different backgrounds and establish good interpersonal relations.

PROFESSIONAL REFERENCES

- Prof. John E. Conway `john.conway@chalmers.se`
- Prof. Philip Diamond `philip.diamond@manchester.ac.uk`
- Prof. Moshe Elitzur `moshe@pa.uky.edu`
- Prof. John Black `john.black@chalmers.se`