Curriculum vitae

Full Name: Theresa Beatrice Veronica Wiegert
Telephone: +1-613-340-6901 (mobile)
E-mail: theresa.wiegert@gmail.com
Citizenship: Sweden, permanent residency in Canada
Languages: Fluent in both spoken and written Swedish and English, good knowledge of French, basic knowledge of German, Dutch and Spanish

Education

- NAIC/NRAO Single Dish Summer School, July 2013, Arecibo observatory
- ALMA workshop, University of Toronto, April 2011
- **Doctor of Philosophy degree in Astrophysics**, Dept. of Physics & Astronomy, University of Manitoba, Feb 2004 – Dec 2010. Thesis title "*Spiral galaxy HI models, rotation curves and kinematic classifications*". http://hdl.handle.net/1993/4377 Supervisor Dr. Jayanne English
- NRAO Radio Synthesis Summer School, VLA and University of New Mexico, June 2006
- The Vatican Observatory Summer School, Italy, 2003, Topic: *Galaxy evolution*
- **Master of Science degree in Physics,** Dept. of Physics, Göteborgs Universitet, Sweden, Jun 2002 - Jun 2003, thesis title: *"Galaxy Evolution, the Deepest View of the Universe"*. Supervisor: Dr. Duilia F. de Mello, co-supervised by Dr. Cathy Horellou
- Course work in parallel with the Physics Engineering program (combined to an equivalent of an undergraduate degree in Physics), Göteborgs Universitet, Sweden, Aug 1996 - May 2001
- Physics Engineering program studies, combined to the equivalent of an undergraduate and MSc degree in Physics at Göteborgs Universitet, Chalmers, Göteborg, Aug 1995 - May 2001
- Elof Lindälvs Gymnasium, Kungsbacka, 1992 - 1995 High School diploma in Natural Sciences. Thesis: *Radioastronomy*

Academic/research work history

- Postdoctoral fellow at Dept. of Physics, Engineering physics & Astronomy, Queen's University, Sep 1 2011 - Aug 30, 2014, supervisor Dr. Judith Irwin
- Assisted updating the online observation manual on low frequency observing, NRAO, Socorro, 2012, with Dr. E. Momjian
- Continuum radio observations for the "Continuum Halos of Nearby Galaxies - an EVLA Survey" project at JVLA, Sep 2011 - May 2012
- Sub-mm observations for the "Nearby Galaxies Legacy Survey" project, at JCMT, at two occasions during 2007-2008

Teaching experience

- Science Quest astronomy outreach for young children (grades 4-6), summers of 2012, 2013
- Student supervision: Yang Yang (PhD student, spring-summer 2014), Scott MacDonald (summer student, summer 2014), Philip Schmidt (at VLA, NRAO), Carolina Mora, Yelena Stein (PhD students), Kurtis Dekker (under-graduate thesis project), Stephen MacGregor (summer student), 2012-2013
- Teaching Assistant, teaching 1st year physics and astronomy labs, Department of Physics & Astronomy, University of Manitoba, supervisor: Ian Cameron, 2004-2009
- Invited lectures and occasionally substituting lectures in 1st and 2nd year astronomy courses, 2006 - 2009, Department of Physics & Astronomy, University of Manitoba, supervisors: Dr. Jayanne English, Jennifer West
- Let's Talk Science outreach, teaching in grades K-12 on various science topics, 2005-2009

Publications

Press releases:

"*VLA Reveals Spectacular "Halos" of Spiral Galaxies"*, in conjunction with the publication of CHANG-ES IV and the Data Release I, Oct 2015, https://public.nrao.edu/news/pressreleases/galaxy-halos

Refereed papers:

CHANG-ES – XI. Circular polarization in the cores of nearby galaxies, Irwin, J., et al. 2018, Monthly Notices of the Royal Astronomical Society, 476, 5057 (2018)

CHANG-ES X: Spatially Resolved Separation of Thermal Contribution from Radio Continuum Emission in Edge-on Galaxies, Vargas, Carlos J.; Mora-Partiarroyo, Silvia Carolina; Schmidt, Philip; Rand, Richard J.; Stein, Yelena; Walterbos, René A. M.; Wang, Q. Daniel; Basu, Aritra; Patterson, Maria; Kepley, Amanda; Beck, Rainer; Irwin, Judith; Heald, George; Li, Jiangtao; **Wiegert, Theresa**, The Astrophysical Journal, 853, 128 (2018)

CHANG-ES. IX. Radio scale heights and scale lengths of a consistent sample of 13 spiral galaxies seen edge-on and their correlations, Krause, Marita; Irwin, Judith; **Wiegert, Theresa**; Miskolczi, Arpad; Damas-Segovia, Ancor; Beck, Rainer; Li, Jiang-Tao; Heald, George; Müller, Peter; Stein, Yelena; Rand, Richard J.; Heesen, Volker; Walterbos, Rene A. M.; Dettmar, Ralf-Jürgen; Vargas, Carlos J.; English, Jayanne; Murphy, Eric, Astronomy & Astrophysics, 611, 72 (2018)

CHANG-ES VIII: Uncovering Hidden AGN activity in radio polarization, Irwin, Judith A.; Schmidt, Philip; Damas-Segovia, A.; Beck, Rainer; English, Jayanne; Heald, George; Henriksen, Richard N.; Krause, Marita; Li, Jiang-Tao; Rand, Richard J.; Wang, Q. Daniel; **Wiegert, Theresa;** Kamieneski, Patrick; Paré, Dylan; Sullivan, Kendall, Monthly Notices of the Royal Astronomical Society, 464, 1333 (2017)

CHANGES VIII: Uncovering Hidden AGN Activity in Radio Polarization, J. A. Irwin, P. Schmidt, A. Damas-Segovia, R. Beck, J. English, G. Heald, R. N. Henriksen, M. Krause, J. Li, R. J. Rand, Q. D. Wang, **T. Wiegert,** P. Kamieneski, D. Pare, and K. Sullivan, accepted for publication in MNRAS, manuscript ID MN-16-2478-MJ

CHANGES VII: Magnetic Outflows from the Virgo Cluster Galaxy NGC4388 – Damas-Segovia, A.; Beck, R.; Vollmer, B.; **Wiegert, T.**; Krause, M.; Irwin, J.; Weżgowiec, M.; Li, J.; Dettmar, R.-J.; English, J.; Wang, Q. D., The Astrophysical Journal, Volume 824, Issue 1, article id. 30, pp. (2016)

CHANGES VI: Probing Supernova Energy Deposition in Spiral Galaxies Through Multi-Wavelength Relationships, Li, Jiang-Tao; Beck, Rainer; Dettmar, Ralf-Jürgen; Heald, George; Irwin, Judith; Johnson, Megan; Kepley, Amanda A.; Krause, Marita; Murphy, E. J.; Orlando, Elena; Rand, Richard J.; Strong, A. W.; Vargas, Carlos J.; Walterbos, Rene; Wang, Q. Daniel; **Wiegert, Theresa,** Monthly Notices of the Royal Astronomical Society, Volume 456, Issue 2, p.1723-1738

CHANG-ES V: Nuclear Radio Outflow in a Virgo Cluster Spiral after a Tidal Disruption Event, Irwin, J. A.; Henriksen, R. N.; Krause, M.; Wang, Q. D.; **Wiegert, T**.; Murphy, E. J.; Heald, G.; Perlman, E., The Astrophysical Journal, Volume 809, Issue 2, article id. 172, 26 pp. (2015)

CHANG-ES. IV: Radio Continuum Emission of 35 Edge-on Galaxies Observed with the Karl G. Jansky Very Large Array in D Configuration—Data Release 1, **T. Wiegert**, J. Irwin, A. Miskolczi, P. Schmidt, S. C. Mora, A. Damas-Segovia, Y. Stein, J. English, R.J. Rand, I. Santistevan, R. Walterbos, M. Krause, R. Beck, R.-J. Dettmar, A. Kepley, M. Wezgowiec, Q. D. Wang, G. Heald, J. Li, S. MacGregor, M. Johnson, A.W. Strong, A. DeSouza, T. A. Porter, The Astronomical Journal, Volume 150, Issue 3, article id. 81, 23 pp. (2015)

Kinematic classification of non-interacting spiral galaxies, **T. Wiegert**, J. English, New Astronomy, Vol 26, Jan 2014, 40–61, accepted April 2013

CHANG-ES III: UGC10288 – An Edge-on Galaxy with a Background Double-lobed Radio Source, J. Irwin, M. Krause, J. English, R. Beck, E. Murphy, **T. Wiegert**, G. Heald, R. Walterbos, R. Rand, T. Porter, the Astronomical Journal,146, 164I, 2013

Continuum Halos in Nearby Galaxies: An EVLA Survey (CHANG-ES). II. First Results on NGC 4631, Irwin, J.; Beck, R.; Benjamin, R. A.; Dettmar, R-J.; English, J.; Heald, G.; Henriksen, R.; Johnson, M.; Krause, M.; Li, J.-T.; Miskolczi, A.; Mora, S. C.; Murphy, E. J.; Oosterloo, T.; Porter, T. A.; Rand, R. J.; Saikia, D. J.; Schmidt, P.; Strong, A. W.; Walterbos, R.; Wang, Q. D.; **Wiegert, T.**, The Astronomical Journal, Vol. 144, Issue 2, article id. 44, 13 pp., 2012

Continuum Halos in Nearby Galaxies: An EVLA Survey (CHANG-ES). I. Introduction to the Survey, Irwin, J. Beck, R., Benjamin, R.A., Dettmar, R.-J., English , J., Heald, G., Henriksen, R.N., Johnson, M., Krause, M., Li, J.-T., Miskolczi, A. ,Mora, S.C., Murphy, E.J., Oosterloo, T., Porter, T.A., Rand}, R.J., Saikia, D.J., Schmidt, P., Strong, A.W., Walterbos, R., Wang, Q.D., **Wiegert, T.**, The Astronomical Journal, Volume 144, Issue 2, article id. 43, 9 pp. 2012

The DiVA's Mask: Iconifying Galaxies and Revealing HI Anomalies, English, J.; Fiege, J.; **Wiegert, T**.; Koribalski, B.; Kerzendorf, W.; Freeman, K. C., 2010, Galaxies and their Masks, 105, SPRINGER

Assessing the galaxy population out to z~2 using the Hubble Deep Field South, **Wiegert, T***.,* de Mello, D.F., Horellou, C., 2004, Astronomy and Astrophysics, 426, 455, astro-ph/0407156.

Additionally a number of papers for the Nearby Galaxies Legacy Survey of which I am a co-author, are listed below (truncated due to long author lists):

The JCMT Nearby Galaxies Legacy Survey - VIII. CO data and the $L_{CO(3-2)}$-L_{FIR} correlation in the SINGS sample, Wilson, C.D.; Warren, B. E.; et al., MNRAS, Volume 424, Issue 4, pp. 3050-3080, 2012

The JCMT Nearby Galaxies Legacy Survey V: The CO(J=3-2) Distribution and Molecular Outflow in NGC 4621, J. A Irwin, C. D. Wilson, **T. Wiegert**, et al., 2011, MNRAS, 410, 1423

The JCMT Nearby Galaxies Legacy Survey - IV. Velocity dispersions in the molecular interstellar medium in spiral galaxies, Wilson, C. D., Warren, B. E., Irwin, J., et al., 2011, MNRAS, 410, 1409

The JCMT Nearby Galaxies Legacy Survey - III. Comparisons of cold dust, polycyclic aromatic hydrocarbons, molecular gas and atomic gas in NGC 2403, G. J. Bendo, C. D. Wilson, et al., 2010, MNRAS, 402, 1409

The JCMT Nearby Galaxies Legacy Survey II: Warm Molecular Gas and Star Formation in Three Field Spiral Galaxies, B. E. Warren, C. D. Wilson, et al., 2010, arXiv:1003.1751

The James Clerk Maxwell Telescope Nearby Galaxies Legacy Survey. I. Star-Forming Molecular Gas in Virgo Cluster Spiral Galaxies, C. D. Wilson, B. E. Warren, et al., 2009, Astrophysical Journal, 693, 173

Poster papers:

Mass models and parametric kinematic models of nearly edge-on spiral galaxies, Wiegert, T., English, J., Fiege, J., Cardigan Smith, B., Swaters, R., Canadian Astronomical Society (CASCA) meeting in Victoria, 2008

A kinematic study of nearby spiral galaxies, Wiegert, T., English, J., Fiege, J., Champion, H., Swaters, R. Presented at the American Astronomical Society and CASCA meetings in Calgary, 2006

Rotation Curves – revealing the hidden nature of galaxies: the first stages, Wiegert, T., English, J., Fiege, J., Swaters, R., CASCA meeting in Montreal, 2005

A gallery of galaxies in the Hubble Deep Field South, Wiegert, T., de Mello, D.F., Horellou, C., Astronomdagar in Lund and CASCA meeting in Winnipeg, 2004

A New Interactive Database of High-Redshift Galaxies, American Astronomical Society Meeting (Seattle, 2003), 201, #09.06. Wiegert, T., de Mello, D.F., Horellou, C. 2002AAS...201.0906W, 2003

Talks and public appearances

- *"The first CHANG-ES data release",* Radio halos of galaxies workshop, Madison WI, July 2016
- *"From the sun to the galaxies, and beyond",* invited public outreach talk, Brockville, Jan 2016
- *"NGC 3735 & NGC 3877 - a tale of two CHANG-ES survey sweethearts"* Radio halos in galaxies workshop Bonn, 2015
- *"D-configuration C & L-band observations and results"*, Radio halos in galaxies workshop, Kingston Ontario, 2014

- *"In the footsteps of agent 007 at the Arecibo Observatory"*, Queen's Observatory (invited public talk), Oct 2013
- *"NGC 3735 - first radio continuum results"*, Radio halos in galaxies conference, Leiden, 2013
- *"Reducing data using CASA"*, Radio halos in galaxies conference, Leiden, 2013
- Data reduction workshop - organizer, Radio halos in galaxies conference, Leiden, 2013
- *"Adventures at the Karl G. Jansky Very Large Array"* , invited public talk at Queen's observatory, Jan 2013
- *"Observing edge-on galaxies with the Karl G. Jansky Very Large Array"* Queen's University and University of New Mexico, (two invited talks), Mar and Apr 2012
- *"Spiral galaxy HI models, rotation curves and kinematic classifications"*, conference talk on PhD thesis results at Canadian Astronomical Society meeting, London, Canada, June 2011
- Participated as astronomer in children's TV show "Planet Echo", episode *"Great balls of fire",* broadcast Jan 2011 on APTN (see http://www.youtube.com/watch?v=6B7V9DwMztU)
- NSERC workshop for teachers on science and astronomy at the Manitoba Museum, August 2008 (invited talk)
- *"Observing with the JCMT"* , Royal Astronomical Society of Canada (RASC) meeting, (Invited public talk), Aug 2008
- *"Detecting Dark Matter?"*, RASC meeting, (invited public talk), May 2006

Previous employment

- Postdoctoral fellow at Dept. of Physics, Engineering physics & Astronomy, Queen's University, Sep 1 2011 - Aug 30, 2014, supervisor Dr. Judith Irwin
- Site coordinator for the Let's Talk Science Partnership Program: Coordinating a science outreach program involving 80 volunteers and about 50 schools or educators, Faculty of Science, University of Manitoba, supervisors: Dr. E. Worobec (vice Dean of Science), Sue McKee (2005-2008) and Isabel Deslauriers (2008-2009) (National Coordinators of Let's Talk Science), 2005-2009
- Teaching Assistant, University of Manitoba, 2004-2009, in a range of physics and astronomy courses
- Slottsskogen Observatory, guiding the exhibition and the night sky for the general public, 2001-2004
- Colt Ballongflyg, driving and scheduling for commercial hot-air ballooning, teaching passengers to unpack and pack a hot-air balloon, 2001-2003
- Ny Teknik, student reporter for a Swedish magazine of technology, 2000-2001
- Arla Foods, dairy storage work during two summers, 1999-2000
- Norra Hallands Veckoblad, local Swedish newspaper, writing occasional articles, 1999 - 2003
- Vattenfall, Ringhals nuclear power plant, storage work, summer 1995

Committee experience

- Science Organizing Committee member for the third 'Radio Halos of Galaxies' meeting in Bonn, Germany, July 2015
- Science Organizing Committee member for the second 'Radio halos of galaxies' conference in Kingston, July 2014
- Acting post-doc representative for union local psac901 at Queen's University (shared position), Dec 2013-April 2014
- Science Organizing Committee member for the first 'Radio halos of galaxies' conference in Leiden, July 2013
- Graduate student representative for University of Manitoba in the Graduate Student Organisation of the Canadian Astronomical Society, 2006-2010
- President of the Physics and Astronomy Graduate Student Association at the University of
- Manitoba, 2007 - 2008
- Graduate student representative in the outreach committee of Physics and Astronomy department
- at University of Manitoba, 2006 - 2007
- Vice president of the Physics and Astronomy Graduate Student Association at the University of
- Manitoba, 2005 - 2006
- Member of the board of Göteborgs Astronomiska Klubb, GAK, 2003 -2005

Awards

- Queen's MRI post-doctoral fellow award, 2012-2013
- MITACS-accelerate award 2009 (this award was not used, due to loss of industry partner commitment)

Extra-curricular activities

Cycling, jogging, swimming, music (flute, singing, piano), gardening, photography, ballroom dancing, hot-air ballooning, eclipse chasing