CURRICULUM VITAE — **Glenn G. Kacprzak**

PERSONAL INFORMATION:

Citizen: Canadian
Address: Swinburne University of Technology
Centre for Astrophysics & Supercomputing
Mail H39, PO Box 218,
Hawthorn, Victoria 3122, Australia

Phone:+61 (0)3 9214 5439
Fax: +61 (0)3 9214 8797
Email: gkacprzak@astro.swin.edu.au
http://astronomy.swin.edu.au/~gkacprzak

EDUCATION:

2008 **Ph.D.** Astronomy, New Mexico State University, Las Cruces, NM, USA
Advisor: Chris W. Churchill
"*Morphological, Kinematic, and Halo Gas Properties of* Mg II *Absorption Selected Galaxies at Intermediate Redshift*"

2005 **M.Sc.** Astronomy, Saint Mary's University, Halifax NS, Canada
Advisor: Gary A. Welch
"*The Cool Interstellar Medium of NGC 5866*"

2001 **B.Sc.** Astrophysics with Honours, Queen's University, Kingston ON, Canada
Advisor: Lawrence M. Widrow
"*Fuzzy Cold dark Matter; Modeling the Substructure of Galactic Halos*"

RESEARCH EXPERIENCE:

2008– Postdoctoral Research Fellow at the Centre for Astrophysics & Supercomputing, Swinburne University of Technology, Australia

RESEARCH GRANTS & AWARDS:

2007	Zia Award – Recognizes Outstanding Research
2007	NMSU Astronomy International Travel Grant, ($2,000)
2007	Canadian Astronomical Society Travel Grant, ($250)
2007–	Vice President for Research Graduate Student Enhancement Grant, ($36,000, 3yr)
2005–2006	NASA Space Telescope Science Institute, co-I, ($59,500)
2005–2006	NMSU Graduate School Merit Enhancement Fellowship, ($4,000)
2004–2005	Scott Murrell Award – Recognizing Professional Development & Research
2004–2005	Sigma-Xi Grants–in–Aid of Research, ($1,100)
2004	International Astronomical Union Grant, ($580)
2003–2004	Pegasus Award for Outstanding Teaching

Awarded Time on:	HST, Keck–II, VLT, Magellan, APO, JCMT & Gemini
Observed on:	Keck–II, Magellan–Clay 6.5m, APO 3.5m, & KPNO 4.0m
Analyzed/Reduced Data from:	(Galaxy Spectra) Keck–II/ESI, APO/DIS, JCMT, & IRAM
	(QSO Spectra) Keck–I/HIRES, VLT/UVES, HST/STIS, HST/FOS, & GMRT
	(Galaxy Imaging) HST/WFPC–2, JCMT/SCUBA, APO/SPIcam, IRAS, & SPITZER/MIPS
Software:	GIM2D, GAIA, SExtractor,TinyTim, IRAF, SPECX, SURF, LVG models, IDL, Fortran, C, & Perl
My Software:	Sysanal – interactive/visual tool that searches QSO spectra for absorption/emission features and computes measurable quantities such as equivalent width, velocity moments, etc.
	K-correction – Computes the K-correction for any given set of filters for a set of galaxy SEDs.

SUCCESSFUL TELESCOPE PROPOSALS:

28. **Hubble Space Telescope**, 2008
Title: *Detailed Probing of a 3000 km/s Lyα + Metal Line Absorption Complex Near Two Galaxies at* $z = 0.67$
Churchill, C. W., Kacprzak, G. G., Steidel C. C., Evans, J. L., & Klypin, A.

27. **Magellan Telescopes, Clay 6.5m.**, 2008B
Title: *What is the Covering Fraction of* Mg II *Halos? A QSO Absoprtion Line Survey With Redshifted Galaxies*
Lopez, S., Churchill, C. W., Kacprzak, G. G., Marinello, G., & Tejos, N.

26. **Magellan Telescopes, Clay 6.5m.**, 2008A
Title: *What is the Covering Fraction of* Mg II *Halos? A QSO Absoprtion Line Survey With Redshifted Galaxies*
Lopez, S., Churchill, C. W., Kacprzak, G. G., Marinello, G., & Tejos, N.

25. **Apache Point Observatory 3.5m.** Over the Period of 2005–Q2 to 2008–Q3.
Eleven Proposals were accepted for a total of 52 half nights.
Title: *Photometric Redshifts of Metal-line Absorbing Galaxies in Quasar Fields*
Kacprzak, G. G., Churchill, C. W., Evans, J. L., & Connolly A.

14. **Apache Point Observatory 3.5m.** Over the Period of 2005–Q3 to 2008–Q3.
Nine Proposals were accepted for a total of 32 half nights.
Title: *Kinematics of* Mg II *Absorption Selected Galaxies*
Kacprzak, G. G., Churchill, C. W., Vogt N. P., & Steidel C. C.

5. **Keck-II**, 2006, NOAO PID #2006B-0437
Title: *The Galaxy–Halo Gas Kinematic Connections at Intermediate Redshift*
Churchill, C. W., Kacprzak, G. G., & Vogt, N. P

4. **The Very Large Telescope**, 2006.
Title: *Hα Kinematics of* Mg II *absorber galaxies at* $z \sim 1$
N. Bouche, C. Peroux, Murphy M. T., Churchill, C. W., & Kacprzak, G. G.

3. **Gemini-North**, 2005, NOAO Proposal ID #2005B-0336
Title: *The Galaxy-kinematic Gaseous-halo kinematic connection in Early Epoch Galaxies*
Churchill, C. W., & Kacprzak, G. G.

2. **Hubble Space Telescope**, Cycle 14, 2004
Title: *Morphologies and* Mg II/C IV *Absorption in 85 Intermediate Redshift Galaxies*
Churchill, C. W., & Kacprzak, G. G.

1. **James Clerk Maxwell Telescope**, Proposal ID # 01B/05, 2001
Title: *Properties of the Dense Gas in NGC 5866*
Welch, G, A., & Kacprzak, G. G.

REFEREED JOURNAL PAPERS:

11. Kacprzak, G. G., Churchill, C. W., Ceverino, D., Steidel, C. C., Klypin, A., & Murphy, M. T. 2008, ApJ, submitted; *Halo Gas and Galaxy Disk Kinematics Derived from Observations and* Λ*CDM Simulations of* Mg II *Absorption Selected Galaxies at Intermediate Redshift*

10. Churchill, C. W., Ceverino, D., Kacprzak, G. G., & Klypin, A. 2008 ApJ, to be submitted April 30; *Toward Observational Constraints on Feedback and the Formation of Extended Multiphase Gaseous Halos*

9. Churchill, C. W., Kacprzak, G. G, Steidel, C. C., & Murphy, M. T. 2007 AJ, submitted; *The Properties of Galaxies Selected by Weak* Mg II *Absorption in Quasar Spectra*

8. Kacprzak, G. G., Churchill, C. W., Steidel, C. C., & Murphy, M. T. 2008, AJ, 135, 922; *Halo Gas Cross Sections and Covering Fractions of* Mg II *Absorption Selected Galaxies*

7. Kacprzak, G. G., Churchill, C. W., Steidel, C. C., & Murphy, M. T. 2007 ApJ, 662, 909; *A Correlation Between Galaxy Morphology and* Mg II *Halo Absorption Strength*

6. Churchill, C. W., Kacprzak, G. G., Steidel, C. C., & Evans, J. L. 2007 ApJ, 661, 714; *On the Heterogeneity of Metal-Line and Ly-Alpha Absorption in Galaxy "Halos" at* $z \sim 0.7$

5. Masiero, J. R., Charlton, J. C., Ding, J., Churchill, C. W., & Kacprzak, G. G. 2005, ApJ, 623, 57; *Five Absorption Line Systems Along the Line of Sight to PG 0117+213*

CONFERENCE PROCEEDINGS:

4. Kacprzak, G. G., Churchill, C. W., Steidel, C. C., Ceverino, D., Klypin, A. A., & M. T. Murphy 2008, astro-ph/0710.4962, *Connecting Galaxy Disk and Extended Halo Gas Kinematics*, in "Formation & Evolution of Galaxy Disks", Rome, Italy, Oct. 1-5, 2007, eds. J. G. Funes, S.J. & E. M. Corsini (ASP Conference Proceedings)

3. Kacprzak, G. G., Churchill, C. W., & Steidel, C. C. 2005, *Galaxy Morphology - Halo Gas Connections*, in "Probing Galaxies through Quasar Absorption Lines", Shanghai, China, March 14-19, 2005, eds. P. Williams, C. Shu, & B. Minárd, (IAU 199)

2. Churchill, C. W., Kacprzak, G. G., & Steidel, C. C. 2005, Mg II *Absorption through Intermediate Redshift Galaxies*, in "Probing Galaxies through Quasar Absorption Lines", Shanghai, China, March 14-19, 2005, eds. P. Williams, C. Shu, & B. Minárd, (IAU 199)

1. Churchill, C. W., Steidel, C. C., & Kacprzak, G. G. 2004, Mg II *Absorbing Galaxies: Morphologies and Kinematics*, in "Extraplanar Gas", ed. R. Braun, (PASP Conference Proceedings)

TEACHING EXPERIENCE:

Campus Observatory Operator/Instructor (2006–2007)

New Mexico State University Astronomy Department
– Responsibilities include running the NMSU Campus Observatory (consisting of two 12" telescopes) for two hours a week. We educated roughly 300 undergraduate students who are required to participate in observatory observations once a month.

Head Teaching Assistant (2004–2005)

New Mexico State University Astronomy Department
– Responsibilities included holding weekly meetings with all student lab instructors and reviewing next weeks labs and discussing any problems with the previous weeks labs. Training sessions were also held in order to show new students how to teach the labs and prepare and instruct the proper introductory material to their class.

Lab Instructor (2003–2006)

New Mexico State University Astronomy Department
– Instructor for $\sim$ 30 students for a two hour a week lab. Responsible for creating/presenting background material necessary to perform the labs, running the labs, answering student questions, and grading all the lab work.

Guest Lecturer (2001–2003)

Saint Mary's University Astronomy & Physics Department
– Created and Instructed five physics lectures for an undergraduate forensic sciences course.

Lab Assistant (2001–2003)

Saint Mary's University Astronomy & Physics Department
– Instructing and grading first year physics labs. Leading tutorial sessions for non–physics majors.

COLLOQUIA AND CONFERENCE PRESENTATIONS:

Date	Location	Conference Title/ University Name	Type	Title
Jul. 2008	Las Cruces, NM	New Mexico State University Astronomy Colloquium	Talk	Morphological, Kinematic, & Halo Gas Properties of Mg II Absorption Selected Galaxies at Intermediate Redshift
May. 2008	Socorro, NM	Cosmic Web: Glaxies & The Large–Scale Structure	Talk	Extended Halo Gas and Galaxy & Kinematics at Intermediate Redshift
Apr. 2008	Irvine, CA	4th UC Irvine Center for Cosmology Workshop	Talk	Extended Halo Gas and Galaxy Kinematics in The ΛCDM Paradigm
Apr. 2008	Las Vegas, NV	University of Nevada, Las Vegas Astronomy Colloquium	Talk	Extended Halo Gas and Galaxy Kinematics in The ΛCDM Paradigm
Jan. 2008	Austin, TX	American Astronomical Society Annual Meeting	Talk	The Morphological and Kinematic Gas-Galaxy Relations in Early-Epoch Galaxies
Nov. 2007	Santa Cruz, CA	FLASH – Lunch Talk Series UC Santa Cruz	Talk	Unraveling Galaxy Formation From Extended Halo Gas and Galaxy Disk Kinematics
Nov. 2007	Pasadena, CA	Lunch Talk Series Carnegie Observatories	Talk	Unraveling Galaxy Formation From Extended Halo Gas and Galaxy Disk Kinematics
Nov. 2007	Tucson, AZ	Lunch Talk Series NOAO	Talk	Unraveling Galaxy Formation From Extended Halo Gas and Galaxy Disk Kinematics
Oct. 2007	Socorro, NM	NRAO – 23rd Annual New Mexico Symposium	Poster	Connecting Galaxy Disk & Extended Halo Gas Kinematics
Oct. 2007	*Rome, Italy*	Formation & Evolution of Galaxy Disks	Poster	Connecting Galaxy Disk & Extended Halo Gas Kinematics
Sept. 2007	*Garching, Germany*	Gas Accretion & Star Formation in Galaxies	Poster	A Comparative Analysis Between Galaxy Disk & Extended Halo Gas Kinematics
Jun. 2007	Kingston, Canada	Canadian Astronomical Society Annual Meeting	Poster	The Galaxy & Halo Gas Kinematic Connect-ion Intermediate Redshift Galaxies
Apr. 2007	Las Cruces, NM	New Mexico State University: Lunch Talk Series	Talk	A Comparative Analysis Between Galaxy Disk & Extended Halo Gas Kinematics
Jan. 2007	Seattle, WA	American Astronomical Society Annual Meeting	Poster	Spatial Probing of Mg II Absorption in "Halo" Gas through Adaptive Mesh Refinement Simulations of Galaxies
Sept. 2006	Las Cruces, NM	New Mexico State University Astronomy Colloquium	Talk	Probing the Galaxy–Halo Gas Connection
Apr. 2006	Las Cruces, NM	Graduate Research Symposium	Poster	Galaxy-Halo Gas Kinematic Connection
Apr. 2005	Las Cruces, NM	Graduate Research Symposium	Poster	Galaxy-Halo Gas Kinematic Connection $0.3 < z < 1$
Mar. 2005	*Shanghai, China*	IAU Colloquium 199: Probing Galaxies Through QSO Abs Lines	Talk	Galaxy-Halo Gas Kinematic Connection $0.3 < z < 1$
Jan. 2005	San Diego, CA	American Astronomical Society Annual Meeting	Poster	Galaxy-Halo Gas Kinematic Connection $0.3 < z < 1$
Oct. 2004	Las Cruces, NM	New Mexico State University: Lunch Talk Series	Talk	Quantifying the Morphologies of Mg II Absorption Selected Galaxies
Aug. 2004	*Crete, Greece*	The Environments of Galaxies: from Kiloparsecs to Megaparsecs	Talk	Galaxy-Halo Gas Kinematic Connection $0.3 < z < 1$
Apr. 2004	Las Cruces, NM	Graduate Research Symposium	Poster	The Cool Interstellar Medium of NGC 5866
Jan. 2004	Atlanta, GA	American Astronomical Society Annual Meeting	Poster	The Cool Interstellar Medium of NGC 5866
Jun. 2003	Waterloo, Canada	Canadian Astronomical Society Annual Meeting	Poster	The Cool Interstellar Medium of NGC 5866

MEDIA COVERAGE OF RESEARCH

– Las Cruces Bulletin News Release: *NMSU Astronomers at Forefront of Quasar-based Research.*
– Featured in the NMSU Research & Resources, Tomorrow's Researchers: *Probing the Grandeur of Galaxies.*

SOCIETIES/COMMITTEES

– American Astronomical Society (AAS) member.
– Canadian Astronomical Society (CASCA) member.
– Astronomy Department Curriculum Committee, graduate student member.

REFERENCES:

Dr. Christopher Churchill	Dr. Nicole Vogt	Dr. Charles Steidel
NMSU	NMSU	Caltech
Las Cruces, NM 88003	Las Cruces, NM 88003	Pasadena, CA 91125
(575)646-1913	(575)646-6522	(626)395-4168
cwc@nmsu.edu	nicole@nmsu.edu	ccs@astro.caltech.edu