

Mark C. Wyman

CONTACT INFORMATION

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EDUCATION

Cornell University, Ithaca, New York, USA
Ph.D. Physics 2006
“Cosmic superstrings: Observable remnants of brane inflation” Advisor: Ira Wasserman

McNeese State University, Lake Charles, Louisiana USA
B.S. Physics, B.S. Mathematics, B.A. English Literature 2000

PROFESSIONAL EXPERIENCE

Postdoctoral researcher at the Perimeter Institute for Theoretical Physics. 2006 -

SELECTED HONORS AND AWARDS

NASA Graduate Student Research Fellowship 2005
Cornell Physics Department Boochever Prize Fellowship 2005
National Science Foundation Graduate Research Fellowship 2002
Phi Kappa Phi Graduate Fellowship 2000
McNeese State University, graduated *Summa Cum Laude*, Phi Kappa Phi 2000

PLANNING AND SERVICE

Member of theory working group, CMBpol mission planning team. 2008
Cosmology seminar series organizer. Perimeter Institute. 2007 - 2008
Postdoctoral IT representative, Perimeter Institute 2007-
Planned *The Astrophysics of Near-Term Cosmological Observations*. Perimeter. 2007
Session chair, Strings and Branes in Cosmology. Cosmo '07 Conference. Brighton, UK. 2007
Referee, National Science Foundation Theory Proposals, Physical Review D, Physical Review Letters, Journal of Cosmology and Astroparticle Physics

INVITED PRESENTATIONS

Astronomy colloquium, “Observational String Theory” Royal Military College of Canada. 2008
“N-body Degravitation” Canadian Institute for Theoretical Astrophysics. 2008
“N-body Degravitation” Cambridge / DAMTP. 2008
“N-body Degravitation” Simon Fraser University. 2008
Astronomy department colloquium, “Beyond Vanilla Cosmology” Cornell University. 2008
“Stochastic tunneling in DBI inflation” Syracuse University. 2008
“B-modes from cosmic strings” KICP / Chicago. 2008
“Magnetogenesis” Fermilab. 2008
“Magnetogenesis” McGill University. 2008
“Stochastic inflation revisited” University of Pennsylvania. 2007
“Stochastic inflation revisited” Princeton University. 2007
“Stochastic inflation revisited” University of Delaware. 2007
“Stochastic inflation revisited” Columbia University. 2007
“Observing cosmic superstrings” Canadian Institute for Theoretical Astrophysics. 2006

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	“Cosmic superstring networks” Tufts University.	2006	
	“Observing cosmic superstrings” Perimeter Institute.	2006	
	“Observing cosmic superstrings” Pennsylvania State University.	2005	
	“Observing cosmic superstrings” College of William and Mary.	2004	
	“WMAP: Implications for inflation” Cornell University.	2003	
CONFERENCE & SUMMER SCHOOL PRESENTATIONS	“Cosmic strings on trial” PASCOS '08. Perimeter Institute.	2008	
	“Stochastic tunneling in DBI inflation” CITA / PI day.	2008	
	Lecture on Large Scale Structure, Summer School on Particle Physics, Cosmology and Strings, Perimeter Institute.	2007	
	“Magnetogenesis” Cosmo '07 Conference. Brighton, UK.	2007	
	“Limits on cosmic strings from WMAP” Fundamental strings & cosmic strings. Paris, France.	2005	
	“Simulating cosmic superstrings” Third Syracuse-Cornell Meeting.	2005	
	Poster, “Cosmic strings as gravity wave sources” Pulsar Timing Array Workshop, Penn State.	2005	
	“Limits on cosmic strings from WMAP” Cosmo '04 Conference. Toronto, ON, Canada.	2004	
	POPULAR MEDIA	Cosmic ‘egg-beaters’ may have left magnetic legacy, New Scientist Magazine.	12 September 2007
TEACHING	University of Waterloo / Perimeter Institute , Waterloo, Ontario, Canada		
	<i>Co-head instructor</i>	Fall 2008	
	Created a new senior / graduate level course, “Cosmology and Astrophysics through Problems” with one other postdoc. Introduction to modern research topics through illustrative problems.		
	Cornell University , Ithaca, New York USA		
	<i>Part Time Graduate Teaching Assistant</i>	January 2003 - December 2005	
	Taught advanced undergraduate quantum mechanics, electromagnetism, and high-energy physics for physics majors; conceptual physics for non-science majors; and graduate level cosmology.		
	<i>Writing in the Majors Graduate Seminar, Assistant Instructor</i>	August 2002 - November 2002	
	Seminar designed to aid graduate teaching assistants working in the John S. Knight “Writing in the Majors” program. Duties included leading discussions and contributing to class planning.		
	<i>Full Time Graduate Teaching Assistant</i>	August 2000 - May 2002	
	Taught introductory physics for non-majors and an astronomy majors’ sophomore seminar associated with the John. S. Knight “Writing in the Majors” program.		
McNeese State University , Lake Charles, Louisiana USA			
<i>Undergraduate Teaching Assistant</i>	August 1997 - May 2000		
Taught laboratories for introductory physics and remedial mathematics.			
OUTREACH	Keynote presenter, International Summer School for Young Physicists at Perimeter.	2008	
	Invited to present two 1.5 keynotes to all participants, describing modern cosmology. Program hosts over 100 talented high school students from around the world.		
	Consultant and adviser, instructional video on dark matter for high school students.	2007	
	Collaboration with Perimeter Institute outreach coordinator Damian Pope. Finished video, with accompanying materials, distributed to over 3000 high schools worldwide.		
	Applied for and co-organized Templeton Foundation Brown Bag Lunch Program on the topic of “Cosmology and Human Purpose.” Cornell University.	2005	

Interdisciplinary discussions on how modern cosmological discoveries impact the view of humankind on its place in the universe. Report that I filed following program won \$5000 prize.

Public Lecture on Cosmology. Hosted by the McNeese Honors College. 2005
Lecture given on modern cosmology at a popular level; talk was advertised in local newspaper.

Speaker. Cornell Friends of Astronomy Conference. 2004
Conference held for members of the public who support the Cornell Astronomy department to inform them about current research in astronomy and astrophysics.

Presenter. Focus for Teens Workshop. Cornell University. 2002
Workshop is targeted at high school age children from Cornell's geographical region. Its purpose is to encourage them to study science.

OTHER SKILLS

Computation: C / C++, FORTRAN77 / 90, Mathematica

Languages: French, Latin, basic Korean

REFERENCES

Prof. Ira Wasserman
ira@astro.cornell.edu
607-255-5867

Prof. Henry Tye
tye@mail.lns.cornell.edu
607-255-3360

Justin Khoury
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Prof. Levon Pogolian
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