

The Gravity Group Summer Program.

Over the years, we have mentored close to 180 students on various research projects during the summer and a few school-year research projects not linked with any formal academic requirements. Much of this was done with Dave Wilkinson, Suzanne Staggs, Joe Fowler, and most recently Saptarshi Chaudhuri along with the larger family of graduate students and postdocs. There are many additional students who worked with Suzanne on PIQUE, CAPMAP, QUIET, etc. and students who worked with Bill Jones and colleagues who are not listed here but who were all, of course, part of the Gravity Group.

Year	Student	Notes
1991/3	Nasser Queshi	Absorptance of MLI and electronics
1993	John Kulvicki	
1993	Bill Thompson	
1993	Peter Csatorday	H β emission
1993	Peter Kalmus	Control theory
1993	Cathy Cukras	Electronics
1993	Carrie Brown	
1994	Peter Wolanin	Electronics and MSAM
1994	John Kulvicki	
1994	Joshua Weitz	IDL and FITS formatting during semester
1994	Rob Simcoe	General lab work during semester
1994	Tim Gardner	Worked on Faraday Instability during semester
1994	Chris Gabel	Built inclinometer and radiometer control electronics.
1994/95	Jim Bongiolatti	Balloon power distribution system. US Air Force Academy
1994/95	Jon Kurz	The "Kurz heater card"
1995	Tim Robertson	Built a 144 GHz SIS-based receiver. Medical school
1995	Andrea Wood	Built temperature controllers and filter cards.
1995	Paul Ellis	Revamped the vacuum pumps. At Digital Integrity
1995	Randi Cohen	Built chopper electronics. Grad school, UCSD
1995	John Keatley	Built optical pumping lamp. Business school, Harvard
1995	Zach Pitkow	Introduced Lab View to us.
1995	Jon Kurz	Heater card. Grad school, Stanford
1995/96	Jed Beach	Control loop for the QMAP gondola.
1995/96	Glen Monnelly	Built a resonating chopper and microwave receiver for balloon payload. MIT
1996	Christine Coldwell	Work on Dicke radiometer. Caltech
1996	Alex Fuhrman	Balloon-borne cryogenic & power distribution system.
1996	Stuart Bradley	Work on the QMAP experiment.
1996	Tina Pavlin	Reflectometry at 90 GHz. Caltech

1997	Nat Butler	Measured the emissivity of the MAP reflectors.
1997	Michael Desai	Measured the emissivity of the MAP reflectors.
1997	Michael Kesden	Measured the emissivity of the MAP reflectors.
1997	Alysia Marino	Work on the <i>MAP</i> optical characterization.
1997/8	Jessie Shelton	Building a 30/90 GHz radiometer.
1998/99	Eugenio Ortiz	Grad student, Columbia
1998/99	Jamie Hinderks	Grad Student, Stanford, NSF Fellow
1998/99/00	Toby Marriage	Work on FPGA-based correlator.
1998/99/00	Charles Dumont	Building electronics for a 90 GHz radiometer & MINT
1999	Dan Wesley	Measuring the MAP feed emissivity. Cambridge UK, math TRIPOS, NSF Fellow
1999	Ernie Tretkoff	Building analog electronics to control the SIS/HEMT biases.
1999	Elvis Dieguez	Analyzing observing strategies for interferometers.
1999	Anthony Chang	Designing an FPGA correlator using VHDL.
1999	Ray Wang	Programming the MINT command and control system.
1999/00	Mark Tygert	Designing and building a servo card to control cryogenic temperatures.
1999/00	Charles Steinhardt	Measuring the MAP feed emissivity.
2000	John Saunders	Sophomore at Princeton
2000	Joe Steinhardt	Princeton High School
2000	Ari Lazier	Work on MINT electronics
2000	Chandrima Mitra	From India to gain experience, MINT electronics
2000	Billy Margabe	Work on MINT electronics
2000	Josh Cooperman	Work on MINT electronics
2000	Costin Bontas	WMAP emissivity
2000/01/02	Ziggy Kermish	Work on MINT and many other projects
2001	Abhinav Agrawal	Senior at Princeton
2001	Robert Brabley	Senior at Princeton
2001	Mark Morales	Senior at Princeton
2001	Long Tran	Engineering school, worked on MINT thermal control
2001	Ari Lazier	Sophomore at Princeton
2001	Joey Munoz	Sophomore at Princeton
2001/2	Paul Oreto	MINT and surface emissivity

2002	Madhuri Kral	IR blocking filters
2002/3	Meredith Condict	Properties of cryogenic quartz windows IR block (High School)
2002/3/4	Aude Wilhelm	Cryogenic windows
2002/3/4	Matt Smith	ACT optics/single photon counting
2003	Naomi Chang	Thermistor model of a compact array
2003	Marilyn Agbeko	Thermistor model of a compact array
2003	Naynika Chaubey	Heat Switch
2003	Melania Strycharska	Water chiller for ACT
2003	Erik Knauft	Toco Data analysis
2003	Denis Erkal	High conductivity gas gap
2003	Phillip Kidd	
2003/4	Lucy Jacobson	Heat Switch
2004	Joshua Burton	Lincoln Labs
2004	Lusanne Wang	
2004	Blake Dixon	
2004	Shanker Iyer	
2004	Ernie Tretkoff	MINT Built analog electronics to control the SIS bias
2004	Charles Dumont	MINT Built a computer controlled power supply
2004	Mark Tygert	MINT Built a temperature servo card to control cryogenic temperatures
2004	Elvis Dieguez	MINT Analyzed observing strategies for interferometers
2004	Anthony Chang	MINT Designed an PLD-based (programmable logic device) correlator.
2004	Ray Wang	MINT Programmed the command and control system.
2004/5	Akshat Gupta	Sophomore at Carnegie Mellon
2004/5	Jess Reidel	Characterizing magnetic shielding
2005/6	Brent Benson	Antireflection coatings with Judy
2005	Naomi Chang	
2005	Darin Sleiter	Filters for ACT
2005	Jennifer Woodby	Building a 150 GHz polarizer
2005	Sam Fletcher	
2005/6	Will Steinhardt	Radiometer on the roof

2006	Cathy Kunkel	Scattering from flat “wires”
2006	William ”Zach” Glennie	AR Coating of IR lenses
2006	Taotao Liu	CMB polarization modulator
2006	John Fulton	CMB Polarization modulator
2006	Brendon Lyons	CMB polarization modulator
2006	Jonathan Klein	AR Coating and water flow regulator(Haverford)
2006	Hans Rinderknecht	Profilometry and AR coating of lenses
2006/7	Will Steinhardt	(PHS)High School, Telescope base+30 GHz receiver
2007	Henry Blais	High School, Telescope base
2007	Ivana Dimitrova	Recombination-line prototype receiver
2007	(John) Keith Hall	ACT prototype receiver, T_{CMB}
2007	Jareth Holt	T_{CMB} at 10 GHz
2007	Ethan Kassner	Recombination-line prototype receiver
2007	Tom Kneeland	Recombination-line prototype receiver
2007	Josh Levine	T_{CMB} at 10 GHz
2007/8	Amy Lowitz	Recombination-line prototype receiver, CCAM cryo
2007/8	Jennifer Lin	Feeds (during the school year)
2008	Cary Malkiewich	Cryogenics, work with Pufu on optics
2008	Arjun Landes	Cryogenics, CCAM
2008	Tony Zhu	Polarizer holder
2008	Bogdan Stocia	Auto fuel fill and cooling flow control. Cooling system/fuel system
2008	Peter Toshev	ABS base pointing
2008/09	Alicia Kollar	ABS base construction
2009	Kamna Gupta	Transmission through multiple materials (West Windsor High School)
2009	Alex Kinsey	(Carlton College)
2009	Tyler Evans	Reflectometry (Haverford College)
2009/10	Jason Pollack	ABS base & timing synchronization and noise reduction in the ACT data
2009	Cheryl Quah	Measuring ABS feed properties
2009	Nicole Quah	Measuring ABS feed properties
2009	Peter Petrov	Window and beam testing
2009	Rohan Malik	Window and beam testing
2009	Alexander Leaf	AR layer bonding and HWP

2010	Sean Frazier	Electronics
2010	Rutuparna Das (Rutu)	(MIT)
2010	Charlotte Blais	Electronics (Deerfield)
2010	Linda Zhang	Reflection coefficient of a silicon metamaterial
2010	Evan Warner	
2010	George Che	Testing ABS optics
2011	Hadas Zeilberger	CMB from the Jadwin Roof. From Barnard
2011	Gabe Pittelman	CMB from the Jadwin Roof
2011	Joseph McMahan	CMB from the Jadwin Roof
2011	Wendy Harris	Dilution fridge
2011	Dongwoo Choo	Dilution fridge
2011	Dragos Potirniche	ABS Feedhorns
2011	Michael Zhang	ABS Feedhorns
2011	Ovidu Cotlet	Evaporator/filters/NDF
2011	Kai Sheng Tai	Evaporator/filters/NDF
2011	Shawn Xu	ABS detectors
2011	Jason Pollack	ABS software, syncbox, ++
2011	Michael Jimenez	ABS simulations
2012	Thomas Hansen	
2012	Charles (Jamie) Titus	
2015	Matthew O'Rourke	Differential Fixsen FTS
2015	Kevin McElwee	Differential Fixsen FTS
2015	Rajeev Erramilli	Differential Fixsen FTS
2016	Rocco Amorosso	Cryogenic backplane
2016	Zach Schoenfeld	Cryogenic backplane
2017	Michelle Baird	Optimizing a 300 mK test cryostat.
2017	Joshua Lantham	Optimizing a 300 mK test cryostat
2017	Tristan Shoemaker	Thermal modeling of a test cryostat.
2017	Reilly Bova	Visualization of SZ clusters from ACT.
2017	Aizhan Akhmetzhanova	Design of 3-reflector telescopes
2017/8/9/0	Thomas Morris	Design of 3-reflector telescopes + atmospheric modeling
2017	Victor Zhang	Electronics for axion testbed
2017	Anvay Grover	Electronics for axion testbed

2019	Allan Shen	TSAT base assembly
2019	Mona Ye	TSAT electronics
2019	Bryant Hall II	TSAT assembly and blanketing
2019	Loki Lin	TSAT electronics
2019	Christian A. Robles	TSAT assembly and blanketing
2019	Oriel M. Farajun	TSAT base assembly
2019/20	Neha Anil Kumar	TSAT electronics & far sidelobe modeling
2020	Sungjae Chi	Atmospheric modeling for ABS
2020	Neha Anil Kumar	ACT far sidelobe modeling
2021	Bryant Hall II	TSAT assembly and blanketing
2021	David Jensen	Work on TSAT cryostat
2022	Ronit Singhi	TSAT: Base
2022	Max Hines	TSAT: wiring etc
2022	Samuel Li	TSAT: 40K servo
2022	Deniz Erdag	Axions: Test dewar
2022	Rebecka Maehring	Compute interfacing/SW
2022	Nicky (Xinyan) He	Test dewar
2022	Ryan Marin	Prototype 300K LC network
2022	Paolo Montoya	Prototype 300K LC network
2023	Nastassia Patnaik	Coil winder
2023	Vivian Huang	Current supply/persistence switch
2023	Nathaniel Bruss	Persistence switch
2023	Pranav Vadapalli	Gas gap heat switch
2023	Oyu Enkhbold	Coil winder