NITARP: The Desolation of AAS

or

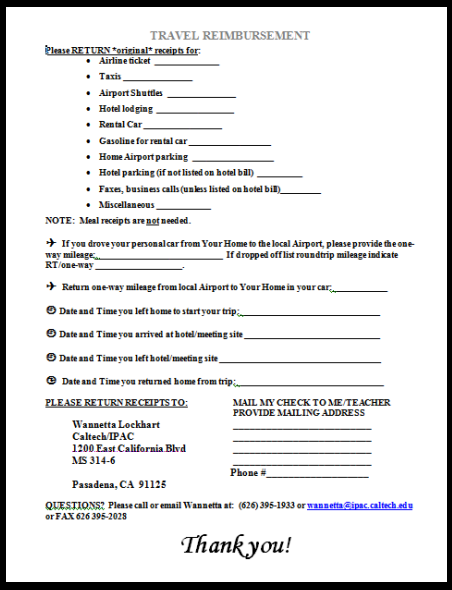
becoming a braver, stronger educator without a magic ring!

Peggy Piper
Lincoln Way HS/Adler Planetarium
Greater Chicago Area

Wannetta Rocks!!

Don't stress……

- Save receipts
  - (not food)
- Email all
- Snail mail all
- Email Wannetta with questions



TRAVEL REIMBURSEMENT

Please RETURN *original* receipts for:

- Airline ticket _____
- Taxis _____
- Airport Shuttles _____
- Hotel lodging _____
- Rental Car _____
- Gasoline for rental car _____
- Home Airport parking _____
- Hotel parking (if not listed on hotel bill) _____
- Faxes, business calls (unless listed on hotel bill)_____
- Miscellaneous _____

NOTE: Meal receipts are not needed.

✈ If you drove your personal car from Your Home to the local Airport, please provide the one-way mileage:_____ If dropped off list roundtrip mileage indicate RT/one-way _____.

✈ Return one-way mileage from local Airport to Your Home in your car:_____

Date and Time you left home to start your trip:_____

Date and Time you arrived at hotel/meeting site_____

Date and Time you left hotel/meeting site_____

Date and Time you returned home from trip:_____

PLEASE RETURN RECEIPTS TO:

Wannetta Lockhart
Caltech/IPAC
1200 East California Blvd
MS 314-6

Pasadena, CA 91125

MAIL MY CHECK TO ME/TEACHER
PROVIDE MAILING ADDRESS
_____
_____
_____
_____
Phone #_____

QUESTIONS? Please call or email Wannetta at: (626) 395-1933 or wannetta@ipac.caltech.edu or FAX 626 395-2028

Thank you!

Workshop

You are here

NITARP 2014 AAS WORKSHOP

5 Jan 2014, Chesapeake 12, Gaylord National Resort and Convention Center

8:30-9:00 Breakfast (pastries) and gathering

9:00-9:30 Welcome and general introduction. Introduce everyone to everyone (Gorjian/Rebull)

9:30-10:30 General description of program milestones and goals (Rebull/Gorjian)

10:30-10:45 Photographs/break/mingle

10:45-11:15 Intro to IPAC archives (IRSA, NED, …) (Rebull)

11:15-11:45 Intro to astronomical imaging (Gorjian)

11:45- 1:00 Lunch/work time with your team

1:00-1:30 Previous teams from the educator perspective (Piper)

1:30-2:00 Intro to AAS and how to read scientific posters (Gorjian)

2:00-4:00 Break, then work with your team, AAS registration

4:00-4:30 Poster-Pop-Ups from 2013 class.

4:30-5:00 AAS treasure hunt introduction and Q&A about AAS.

END of NITARP workshop, but you should head for the ***AAS registration desk*** if you haven't already to pick up registration materials (including AAS nametag). Then, even if you didn't sign up for it, you should go to the ***main AAS opening reception*** (7-9 pm, Potomac Ballroom A). This has FREE FOOD.

REMEMBER: **Monday night, 7-9**, in National Harbor 11 at the Gaylord National Resort and Convention Center – wrap-up and discussion on NITARP 2013! Everyone should come, including 2014 folks and any alumni, as there will be valuable advice shared for 2014. Please try to grab some food ahead of time; we will have light snacks.

Workshop

Relax!!

NITARP 2014 AAS WORKSHOP

5 Jan 2014, Chesapeake 12, Gaylord National Resort and Convention Center

8:30-9:00 Breakfast (pastries) and gathering

9:00-9:30 Welcome and general introduction. Introduce everyone to everyone (Gorjian/Rebull)

9:30-10:30 General description of program milestones and goals (Rebull/Gorjian)

10:30-10:45 Photographs/break/mingle

10:45-11:15 Intro to IPAC archives (IRSA, NED, …) (Rebull)

11:15-11:45 Intro to astronomical imaging (Gorjian)

11:45- 1:00 Lunch/work time with your team

1:00-1:30 Previous teams from the educator perspective (Piper)

1:30-2:00 Intro to AAS and how to read scientific posters (Gorjian)

2:00-4:00 Break, then work with your team, AAS registration

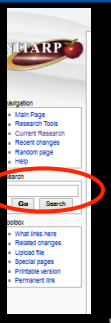
4:00-4:30 Poster-Pop-Ups from 2013 class.

4:30-5:00 AAS treasure hunt introduction and Q&A about AAS.

END of NITARP workshop, but you should head for the ***AAS registration desk*** if you haven't already to pick up registration materials (including AAS nametag). Then, even if you didn't sign up for it, you should go to the ***main AAS opening reception*** (7-9 pm, Potomac Ballroom A). This has FREE FOOD.

REMEMBER: **Monday night, 7-9**, in National Harbor 11 at the Gaylord National Resort and Convention Center – wrap-up and discussion on NITARP 2013! Everyone should come, including 2014 folks and any alumni, as there will be valuable advice shared for 2014. Please try to grab some food ahead of time; we will have light snacks.

Workshop



Wiki☺

NITARP 2014 AAS WORKSHOP

5 Jan 2014, Chesapeake 12, Gaylord National Resort and Convention Center

8:30-9:00 Breakfast (pastries) and gathering

9:00-9:30 Welcome and general introduction. Introduce everyone to everyone (Gorjian/Rebull)

9:30-10:30 General description of program milestones and goals (Rebull/Gorjian)

10:30-10:45 Photographs/break/mingle

10:45-11:15 Intro to IPAC archives (IRSA, NED, …) (Rebull)

11:15-11:45 Intro to astronomical imaging (Gorjian)

11:45- 1:00 Lunch/work time with your team

1:00-1:30 Previous teams from the educator perspective (Piper)

1:30-2:00 Intro to AAS and how to read scientific posters (Gorjian)

2:00-4:00 Break, then work with your team, AAS registration

4:00-4:30 Poster-Pop-Ups from 2013 class.

4:30-5:00 AAS treasure hunt introduction and Q&A about AAS.

END of NITARP workshop, but you should head for the ***AAS registration desk*** if you haven't already to pick up registration materials (including AAS nametag). Then, even if you didn't sign up for it, you should go to the ***main AAS opening reception*** (7-9 pm, Potomac Ballroom A). This has FREE FOOD.

REMEMBER: **Monday night, 7-9**, in National Harbor 11 at the Gaylord National Resort and Convention Center – wrap-up and discussion on NITARP 2013! Everyone should come, including 2014 folks and any alumni, as there will be valuable advice shared for 2014. Please try to grab some food ahead of time; we will have light snacks.

Workshop

Bond w/ Team, take pics/notes

NITARP 2014 AAS WORKSHOP

5 Jan 2014, Chesapeake 12, Gaylord National Resort and Convention Center

8:30-9:00 Breakfast (pastries) and gathering

9:00-9:30 Welcome and general introduction. Introduce everyone to everyone (Gorjian/Rebull)

9:30-10:30 General description of program milestones and goals (Rebull/Gorjian)

10:30-10:45 Photographs/break/mingle

10:45-11:15 Intro to IPAC archives (IRSA, NED, …) (Rebull)

11:15-11:45 Intro to astronomical imaging (Gorjian)

11:45- 1:00 Lunch/work time with your team

1:00-1:30 Previous teams from the educator perspective (Piper)

1:30-2:00 Intro to AAS and how to read scientific posters (Gorjian)

2:00-4:00 Break, then work with your team, AAS registration

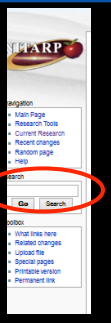
4:00-4:30 Poster-Pop-Ups from 2013 class.

4:30-5:00 AAS treasure hunt introduction and Q&A about AAS.

END of NITARP workshop, but you should head for the ***AAS registration desk*** if you haven't already to pick up registration materials (including AAS nametag). Then, even if you didn't sign up for it, you should go to the ***main AAS opening reception*** (7-9 pm, Potomac Ballroom A). This has FREE FOOD.

REMEMBER: **Monday night, 7-9**, in National Harbor 11 at the Gaylord National Resort and Convention Center – wrap-up and discussion on NITARP 2013! Everyone should come, including 2014 folks and any alumni, as there will be valuable advice shared for 2014. Please try to grab some food ahead of time; we will have light snacks.

Workshop



Acronyms

NITARP 2014 AAS WORKSHOP

5 Jan 2014, Chesapeake 12, Gaylord National Resort and Convention Center

8:30-9:00 Breakfast (pastries) and gathering

9:00-9:30 Welcome and general introduction. Introduce everyone to everyone (Gorjian/Rebull)

9:30-10:30 General description of program milestones and goals (Rebull/Gorjian)

10:30-10:45 Photographs/break/mingle

10:45-11:15 Intro to IPAC archives (IRSA, NED, …) (Rebull)

11:15-11:45 Intro to astronomical imaging (Gorjian)

11:45-1:00 Lunch/work time with your team

1:00-1:30 Previous teams from the educator perspective (Piper)

1:30-2:00 Intro to AAS and how to read scientific posters (Gorjian)

2:00-4:00 Break, then work with your team, AAS registration

4:00-4:30 Poster-Pop-Ups from 2013 class.

4:30-5:00 AAS treasure hunt introduction and Q&A about AAS.

END of NITARP workshop, but you should head for the ***AAS registration desk*** if you haven't already to pick up registration materials (including AAS nametag). Then, even if you didn't sign up for it, you should go to the ***main AAS opening reception*** (7-9 pm, Potomac Ballroom A). This has FREE FOOD.

REMEMBER: **Monday night, 7-9**, in National Harbor 11 at the Gaylord National Resort and Convention Center – wrap-up and discussion on NITARP 2013! Everyone should come, including 2014 folks and any alumni, as there will be valuable advice shared for 2014. Please try to grab some food ahead of time; we will have light snacks.

Workshop

Soak it in

NITARP 2014 AAS WORKSHOP

5 Jan 2014, Chesapeake 12, Gaylord National Resort and Convention Center

8:30-9:00 Breakfast (pastries) and gathering

9:00-9:30 Welcome and general introduction. Introduce everyone to everyone (Gorjian/Rebull)

9:30-10:30 General description of program milestones and goals (Rebull/Gorjian)

10:30-10:45 Photographs/break/mingle

10:45-11:15 Intro to IPAC archives (IRSA, NED, …) (Rebull)

11:15-11:45 Intro to astronomical imaging (Gorjian)

11:45- 1:00 Lunch/work time with your team

1:00-1:30 Previous teams from the educator perspective (Piper)

1:30-2:00 Intro to AAS and how to read scientific posters (Gorjian)

2:00-4:00 Break, then work with your team, AAS registration

4:00-4:30 Poster-Pop-Ups from 2013 class.

4:30-5:00 AAS treasure hunt introduction and Q&A about AAS.

END of NITARP workshop, but you should head for the ***AAS registration desk*** if you haven't already to pick up registration materials (including AAS nametag). Then, even if you didn't sign up for it, you should go to the ***main AAS opening reception*** (7-9 pm, Potomac Ballroom A). This has FREE FOOD.

REMEMBER: **Monday night, 7-9**, in National Harbor 11 at the Gaylord National Resort and Convention Center – wrap-up and discussion on NITARP 2013! Everyone should come, including 2014 folks and any alumni, as there will be valuable advice shared for 2014. Please try to grab some food ahead of time; we will have light snacks.

AAS 2014

Block Schedule

Monday, 6 January 2013				
7:30am	Session Chair Breakfast, 7:30am-8:00am, Chesapeake H			
	Speaker Ready Room, 7:30am-4:00pm, Chesapeake 2/3			
	Registration, 7:30am-5:00pm, Gaylord Convention Center Foyer			
8:00am	**100 Plenary Session:** Welcome Address by AAS President David Helfand, 8:00am-8:30am, Potomac Ballroom A			
8:30am	**101 Plenary Session:** Kavli Foundation Lecture: The Hubble Deep Field and its Legacy, Robert Williams (STScI), 8:30am-9:20am, Potomac Ballroom A			
9:00am	Exhibit Hall, 9:00am-6:30pm			
	Cyber Café, 9:00am-6:30pm, Exhibit Hall			
	Career Center, 9:00am-6:00pm, Exhibit Hall			
	Posters, 9:00am-6:30pm, Exhibit Hall			
	145 New Science from the CLASH/CANDELS Multi-Cycle Treasury Programs Poster Session **146** Exoplanets and Kepler Poster Session **147** HAD III: Poster Session **148** Instrumentation: Ground or Airborne Poster Session **149** Instrumentation: Space Missions Poster Session **150** AGN, QSO, Blazars Poster Session III **151** Stellar Atmospheres, Winds Poster Session	**152** Stellar Evolution, Stellar Populations Poster Session **153** Pulsars & Neutron Stars Poster Session **154** Novae, Cataclysmic Variables, Evolved Stars **155** Binary [illegible] Stellar Systems, X-ray Binaries **156** Variable Stars Poster Session **157** White Dwarfs **158** The Sun Poster Session **160** Developing Our Own Future: Undergraduate Research and Enrichment Through Peer-Led Programs Poster Session		
9:30am	Coffee Break, 9:30am-10:00am, Exhibit Hall			
	Amateur Talk: Gravitational Lensing Boot Camp, Robert J. Nemiroff (Michigan Technological University), 9:30am-10:00am, Maryland Ballroom A			
	Careers 101: Career Planning Workshop for Graduate Students and Postdocs, 9:30am-11:30am, Potomac 1			
10:00am	**Special and Oral Sessions 102-118, 10:00am-11:30am**			
	102 Cosmology & CMB I Potomac Ballroom D	**103** Exoplanets and Kepler Astrophysics Potomac Ballroom A	**104** Exoplanets: Exomoons and Mig[illegible] National Harbor 12	**105** Extrasolar Planets: Characterization & Theory I Maryland Ballroom A
	106 Galaxy Clusters: Star Formation, AGN, Interactions National Harbor 10	**107** HAD IV: History of Astronomy National Harbor 3	**108** HEAD [illegible] from the [illegible] Cen[illegible] Multiwavelength Update on [illegible] A*/G2 Encounter National Harbor [illegible]	**109** Instrumentation I: Space Missions Maryland 2
	110 Intergalactic Medium & QSO I National Harbor 2	**111** Interstellar Medium & Dust I National Harbor 4	**112** Nearby Dwarf and Irregular Galaxies Maryland Ballroom D	**113** Novae, Dwarf Novae and Evolved Stars Maryland 1
	114 Pulsars & Neutron Stars I National Harbor 13	**115** QSOs, AGN National Harbor [illegible]	**116** Results from the Pan-STARRS1 Surveys Maryland Ballroom B	**117** Star Formation I Potomac Ballroom C
	118 The Sun Maryland Ballroom C			
10:15am	Press Conference, 10:15am-11:15am, Chesapeake D			
11:40am	**119 Plenary Session:** Linking Visualization and Understanding in Astronomy, Alyssa Goodman (Harvard-Smithsonian CfA), 11:40am-12:30pm, Potomac Ballroom A			
12:30pm	Career Hour 1: Having the Right Stuff: Outstanding Resumes/CVs for Outstanding Career Opportunities in Academia and Industry, 12:30pm-1:30pm, National Harbor 2			
12:45pm	**120 Town Hall:** HAD Business Meeting, 12:45pm-1:45pm, National Harbor 5			
	121 Town Hall: The International Astronomical Union: Roles and Goals, 12:45pm-1:45pm, Potomac Ballroom D			
	122 Town Hall: The NASA Kepler Mission Town Hall: 2014 and Beyond, 12:45pm-1:45pm, Potomac Ballroom C			
	123 Town Hall: WGLE Town Hall, 12:45pm-1:45pm, National Harbor 4			
	124 Town Hall: NSF Town Hall, 12:45pm-1:45pm, Maryland Ballroom C			
1:30pm	Amateur Talk: Origins of Habitable Planets, Alycia J. Weinberger (Carnegie Institution of Washington), 1:30pm-2:00pm, Maryland Ballroom A			

AAS 2014

1-2-posters-freebies

Monday, 6 January 2013				
7:30am	Session Chair Breakfast, 7:30am-8:00am, Chesapeake H			
	Speaker Ready Room, 7:30am-4:00pm, Chesapeake 2/3			
	Registration, 7:30am-5:00pm, Gaylord Convention Center Foyer			
8:00am	**100 Plenary Session:** Welcome Address by AAS President David Helfand, 8:00am-8:30am, Potomac Ballroom A			
8:30am	**101 Plenary Session:** Kavli Foundation Lecture: The Hubble Deep Field and its Legacy, Robert Williams (STScI), 8:30am-9:20am, Potomac Ballroom A			
9:00am	Exhibit Hall, 9:00am-6:30pm			
	Cyber Café, 9:00am-6:30pm, Exhibit Hall			
	Career Center, 9:00am-6:00pm, Exhibit Hall			
	Posters, 9:00am-6:30pm, Exhibit Hall			
	145 New Science from the CLASH/CANDELS Multi-Cycle Treasury Programs Poster Session **146** Exoplanets and Kepler Poster Session **147** HAD III: Poster Session **148** Instrumentation: Ground or Airborne Poster Session **149** Instrumentation: Space Missions Poster Session **150** AGN, QSO, Blazars Poster Session III **151** Stellar Atmospheres, Winds Poster Session	**152** Stellar Evolution, Stellar Populations Poster Session **153** Pulsars & Neutron Stars Poster Session **154** Novae, Cataclysmic Variables, Evolved Stars **155** Binary [illegible] Stellar Systems, X-ray Binaries **156** Variable Stars Poster Session **157** White Dwarfs **158** The Sun Poster Session **160** Developing Our Own Future: Undergraduate Research and Enrichment Through Peer-Led Programs Poster Session		
9:30am	Coffee Break, 9:30am-10:00am, Exhibit Hall			
	Amateur Talk: Gravitational Lensing Boot Camp, Robert J. Nemiroff (Michigan Technological University), 9:30am-10:00am, Maryland Ballroom A			
	Careers 101: Career Planning Workshop for Graduate Students and Postdocs, 9:30am-11:30am, Potomac 1			
10:00am	**Special and Oral Sessions 102-118, 10:00am-11:30am**			
	102 Cosmology & CMB I Potomac Ballroom D	**103** Exoplanets and Kepler Astrophysics Potomac Ballroom A	**104** Exoplanets: Exomoons and Mig[illegible] National Harbor 12	**105** Extrasolar Planets: Characterization & Theory I Maryland Ballroom A
	106 Galaxy Clusters: Star Formation, AGN, Interactions National Harbor 10	**107** HAD IV: History of Astronomy National Harbor 3	**108** HEAD [illegible] from the [illegible] Cen[illegible] Multiwavelength Update on [illegible] A*/G2 Encounter National Harbor [illegible]	**109** Instrumentation I: Space Missions Maryland 2
	110 Intergalactic Medium & QSO I National Harbor 2	**111** Interstellar Medium & Dust I National Harbor 4	**112** Nearby Dwarf and Irregular Galaxies Maryland Ballroom D	**113** Novae, Dwarf Novae and Evolved Stars Maryland 1
	114 Pulsars & Neutron Stars I National Harbor 13	**115** QSOs, AGN National Harbor [illegible]	**116** Results from the Pan-STARRS1 Surveys Maryland Ballroom B	**117** Star Formation I Potomac Ballroom C
	118 The Sun Maryland Ballroom C			
10:15am	Press Conference, 10:15am-11:15am, Chesapeake D			
11:40am	**119 Plenary Session:** Linking Visualization and Understanding in Astronomy, Alyssa Goodman (Harvard-Smithsonian CfA), 11:40am-12:30pm, Potomac Ballroom A			
12:30pm	Career Hour 1: Having the Right Stuff: Outstanding Resumes/CVs for Outstanding Career Opportunities in Academia and Industry, 12:30pm-1:30pm, National Harbor 2			
12:45pm	**120 Town Hall:** HAD Business Meeting, 12:45pm-1:45pm, National Harbor 5			
	121 Town Hall: The International Astronomical Union: Roles and Goals, 12:45pm-1:45pm, Potomac Ballroom D			
	122 Town Hall: The NASA Kepler Mission Town Hall: 2014 and Beyond, 12:45pm-1:45pm, Potomac Ballroom C			
	123 Town Hall: WGLE Town Hall, 12:45pm-1:45pm, National Harbor 4			
	124 Town Hall: NSF Town Hall, 12:45pm-1:45pm, Maryland Ballroom C			
1:30pm	Amateur Talk: Origins of Habitable Planets, Alycia J. Weinberger (Carnegie Institution of Washington), 1:30pm-2:00pm, Maryland Ballroom A			

AAS 2014

Monday, 6 January 2013				
7:30am	Session Chair Breakfast, 7:30am-8:00am, Chesapeake H			
	Speaker Ready Room, 7:30am-4:00pm, Chesapeake 2/3			
	Registration, 7:30am-5:00pm, Gaylord Convention Center Foyer			
8:00am	**100 Plenary Session:** Welcome Address by AAS President David Helfand, 8:00am-8:30am, Potomac Ballroom A			
8:30am	**101 Plenary Session:** Kavli Foundation Lecture: The Hubble Deep Field and its Legacy, Robert Williams (STScI), 8:30am-9:20am, Potomac Ballroom A			
9:00am	Exhibit Hall, 9:00am-6:30pm			
	Cyber Café, 9:00am-6:30pm, Exhibit Hall			
	Career Center, 9:00am-6:00pm, Exhibit Hall			
	Posters, 9:00am-6:30pm, Exhibit Hall			
	145 New Science from the CLASH/CANDELS Multi-Cycle Treasury Programs Poster Session **146** Exoplanets and Kepler Poster Session **147** HAD III: Poster Session **148** Instrumentation: Ground or Airborne Poster Session **149** Instrumentation: Space Missions Poster Session **150** AGN, QSO, Blazars Poster Session III **151** Stellar Atmospheres, Winds Poster Session		**152** Stellar Evolution, Stellar Populations Poster Session **153** Pulsars & Neutron Stars Poster Session **154** Novae, Cataclysmic Variables, Evolved Stars **155** Binary Stellar Systems, X-ray Binaries **156** Variable Stars Poster Session **157** White Dwarfs **158** The Sun Poster Session **160** Developing Our Own Future: Undergraduate Research and Enrichment Through Peer-Led Programs Poster Session	
9:30am	Coffee Break, 9:30am-10:00am, Exhibit Hall			
	Amateur Talk: Gravitational Lensing Boot Camp, Robert J. Nemiroff (Michigan Technological University), 9:30am-10:00am, Maryland Ballroom A			
	Careers 101: Career Planning Workshop for Graduate Students and Postdocs, 9:30am-11:30am, Potomac 1			
10:00am	**Special and Oral Sessions 102-118, 10:00am-11:30am**			
	102 Cosmology & CMB I Potomac Ballroom D	**103** Exoplanets and Kepler Astrophysics Potomac Ballroom A	**104** Exoplanets: Exomoons and Migration National Harbor 12	**105** Extrasolar Planet Characterization & Theory I Maryland Ballroom A
	106 Galaxy Clusters: Star Formation, AGN, Interactions National Harbor 10	**107** HAD IV: History of Astronomy National Harbor 3	**108** HEAD I: News from the Galactic Center: A Multiwavelength Update on the Sgr A*/G2 Encounter National Harbor 5	**109** Instrumentation I: Space Missions Maryland 2
	110 Intergalactic Medium & QSO I National Harbor 2	**111** Interstellar Medium & Dust I National Harbor 4	**112** Nearby Dwarf & Irregular Galaxies Maryland Ballroom D	**113** Novae, Dwarf Novae and Evolved Stars Maryland 1
	114 Pulsars & Neutron Stars I National Harbor 13	**115** QSOs, AGN National Harbor 11	**116** Results from the Pan-STARRS1 Surveys Maryland Ballroom B	**117** Star Formation I Potomac Ballroom C
	118 The Sun Maryland Ballroom C			
10:15am	Press Conference, 10:15am-11:15am, Chesapeake D/E			
11:40am	**119 Plenary Session:** Linking Visualization and Understanding in Astronomy, Alyssa Goodman (Harvard-Smithsonian CfA), 11:40am-12:30pm, Potomac Ballroom A			
12:30pm	Career Hour 1: Having the Right Stuff: Outstanding Resumes/CVs for Outstanding Career Opportunities in Academia and Industry, 12:30pm-1:30pm, National Harbor 2			
12:45pm	**120 Town Hall:** HAD Business Meeting, 12:45pm-1:45pm, National Harbor 5			
	121 Town Hall: The International Astronomical Union: Roles and Goals, 12:45pm-1:45pm, Potomac Ballroom D			
	122 Town Hall: The NASA Kepler Mission Town Hall: 2014 and Beyond, 12:45pm-1:45pm, Potomac Ballroom C			
	123 Town Hall: WGLE Town Hall, 12:45pm-1:45pm, National Harbor 4			
	124 Town Hall: NSF Town Hall, 12:45pm-1:45pm, Maryland Ballroom C			
1:30pm	Amateur Talk: Origins of Habitable Planets, Alycia J. Weinberger (Carnegie Institution of Washington), 1:30pm-2:00pm, Maryland Ballroom A			

Be flexible!!

AAS 2014

Monday, 6 January 2013				
7:30am	Session Chair Breakfast, 7:30am-8:00am, Chesapeake H			
	Speaker Ready Room, 7:30am-4:00pm, Chesapeake 2/3			
	Registration, 7:30am-5:00pm, Gaylord Convention Center Foyer			
8:00am	**100 Plenary Session:** Welcome Address by AAS President David Helfand, 8:00am-8:30am, Potomac Ballroom A			
8:30am	**101 Plenary Session:** Kavli Foundation Lecture: The Hubble Deep Field and its Legacy, Robert Williams (STScI), 8:30am-9:20am, Potomac Ballroom A			
9:00am	Exhibit Hall, 9:00am-6:30pm			
	Cyber Café, 9:00am-6:30pm, Exhibit Hall			
	Career Center, 9:00am-6:00pm, Exhibit Hall			
	Posters, 9:00am-6:30pm, Exhibit Hall			
	145 New Science from the CLASH/CANDELS Multi-Cycle Treasury Programs Poster Session **146** Exoplanets and Kepler Poster Session **147** HAD III: Poster Session **148** Instrumentation: Ground or Airborne Poster Session **149** Instrumentation: Space Missions Poster Session **150** AGN, QSO, Blazars Poster Session III **151** Stellar Atmospheres, Winds Poster Session		**152** Stellar Evolution, Stellar Populations Poster Session **153** Pulsars & Neutron Stars Poster Session **154** Novae, Cataclysmic Variables, Evolved Stars **155** Binary Stellar Systems, X-ray Binaries **156** Variable Stars Poster Session **157** White Dwarfs **158** The Sun Poster Session **160** Developing Our Own Future: Undergraduate Research and Enrichment Through Peer-Led Programs Poster Session	
9:30am	Coffee Break, 9:30am-10:00am, Exhibit Hall			
	Amateur Talk: Gravitational Lensing Boot Camp, Robert J. Nemiroff (Michigan Technological University), 9:30am-10:00am, Maryland Ballroom A			
	Careers 101: Career Planning Workshop for Graduate Students and Postdocs, 9:30am-11:30am, Potomac 1			
10:00am	**Special and Oral Sessions 102-118, 10:00am-11:30am**			
	102 Cosmology & CMB I Potomac Ballroom D	**103** Exoplanets and Kepler Astrophysics Potomac Ballroom A	**104** Exoplanets: Exomoons and Migration National Harbor 12	**105** Extrasolar Planet Characterization & Theory I Maryland Ballroom A
	106 Galaxy Clusters: Star Formation, AGN, Interactions National Harbor 10	**107** HAD IV: History of Astronomy National Harbor 3	**108** HEAD I: News from the Galactic Center: A Multiwavelength Update on the Sgr A*/G2 Encounter National Harbor 5	**109** Instrumentation I: Space Missions Maryland 2
	110 Intergalactic Medium & QSO I National Harbor 2	**111** Interstellar Medium & Dust I National Harbor 4	**112** Nearby Dwarf & Irregular Galaxies Maryland Ballroom D	**113** Novae, Dwarf Novae and Evolved Stars Maryland 1
	114 Pulsars & Neutron Stars I National Harbor 13	**115** QSOs, AGN National Harbor 11	**116** Results from the Pan-STARRS1 Surveys Maryland Ballroom B	**117** Star Formation I Potomac Ballroom C
	118 The Sun Maryland Ballroom C			
10:15am	Press Conference, 10:15am-11:15am, Chesapeake D/E			
11:40am	**119 Plenary Session:** Linking Visualization and Understanding in Astronomy, Alyssa Goodman (Harvard-Smithsonian CfA), 11:40am-12:30pm, Potomac Ballroom A			
12:30pm	Career Hour 1: Having the Right Stuff: Outstanding Resumes/CVs for Outstanding Career Opportunities in Academia and Industry, 12:30pm-1:30pm, National Harbor 2			
12:45pm	**120 Town Hall:** HAD Business Meeting, 12:45pm-1:45pm, National Harbor 5			
	121 Town Hall: The International Astronomical Union: Roles and Goals, 12:45pm-1:45pm, Potomac Ballroom D			
	122 Town Hall: The NASA Kepler Mission Town Hall: 2014 and Beyond, 12:45pm-1:45pm, Potomac Ballroom C			
	123 Town Hall: WGLE Town Hall, 12:45pm-1:45pm, National Harbor 4			
	124 Town Hall: NSF Town Hall, 12:45pm-1:45pm, Maryland Ballroom C			
1:30pm	Amateur Talk: Origins of Habitable Planets, Alycia J. Weinberger (Carnegie Institution of Washington), 1:30pm-2:00pm, Maryland Ballroom A			

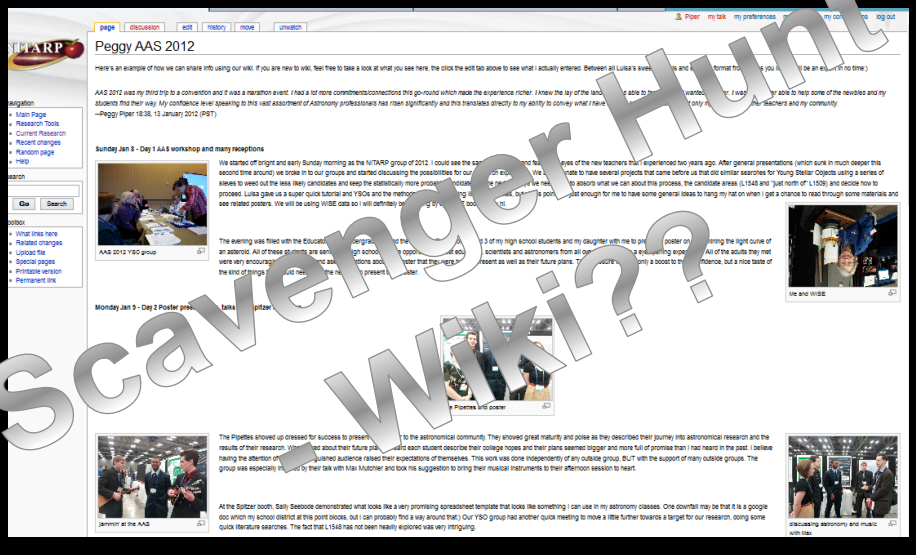
Bond w/Team, take pics/notes

AAS 2014

Monday, 6 January 2013				
7:30am	Session Chair Breakfast, 7:30am-8:00am, Chesapeake H			
	Speaker Ready Room, 7:30am-4:00pm, Chesapeake 2/3			
	Registration, 7:30am-5:00pm, Gaylord Convention Center Foyer			
8:00am	**100 Plenary Session:** Welcome Address by AAS President David Helfand, 8:00am-8:30am, Potomac Ballroom A			
8:30am	**101 Plenary Session:** Kavli Foundation Lecture: The Hubble Deep Field and its Legacy, Robert Williams (STScI), 8:30am-9:20am, Potomac Ballroom A			
9:00am	Exhibit Hall, 9:00am-6:30pm			
	Cyber Café, 9:00am-6:30pm, Exhibit Hall			
	Career Center, 9:00am-6:00pm, Exhibit Hall			
	Posters, 9:00am-6:30pm, Exhibit Hall			
	145 New Science from the CLASH/CANDELS Multi-Cycle Treasury Programs Poster Session **146** Exoplanets and Kepler Poster Session **147** HAD III: Poster Session **148** Instrumentation: Ground or Airborne Poster Session **149** Instrumentation: Space Missions Poster Session **150** AGN, QSO, Blazars Poster Session III **151** Stellar Atmospheres, Winds Poster Session		**152** Stellar Evolution, Stellar Populations Poster Session **153** Pulsars & Neutron Stars Poster Session **154** Novae, Cataclysmic Variables, Evolved Stars **155** Binary Stellar Systems, X-ray Binaries **156** Variable Stars Poster Session **157** White Dwarfs **158** The Sun Poster Session **160** Developing Our Own Future: Graduate Research and Enrichment Through Peer-Led Programs Session	
9:30am	Coffee Break, 9:30am-10:00am, Exhibit Hall			
	Amateur Talk: Gravitational Lensing Boot Camp, Robert J. Nemiroff (Michigan Technological University), 9:30am-10:00am, Maryland Ballroom A			
	Careers 101: Career Planning Workshop for Graduate Students and Postdocs, [illegible] Potomac 1			
10:00am	**Special and Oral Sessions 102-118, 10:00am-11:30am**			
	102 Cosmology & CMB I Potomac Ballroom D	**103** Exoplanets and [illegible] Potomac Ballroom A	[illegible] Exoplanets: Exomoons and Migration National Harbor 12	**105** Extrasolar Planet Characterization & Theory I Maryland Ballroom A
	106 Galaxy Clusters: Star Formation, AGN, Interactions National Harbor 10	**107** History of Astronomy National Harbor 3	**108** HEAD I: News from the Galactic Center: A Multiwavelength Update on the Sgr A*/G2 Encounter National Harbor 5	**109** Instrumentation I: Space Missions Maryland 2
	110 Intergalactic Medium: QSO I National Harbor [illegible]	**111** Interstellar Medium & Dust I National Harbor 4	**112** Nearby Dwarf & Irregular Galaxies Maryland Ballroom D	**113** Novae, Dwarf Novae and Evolved Stars Maryland 1
	114 [illegible] Stars National Harbor 13	**115** AGN National Harbor 11	**116** Results from the Pan-STARRS1 Surveys Maryland Ballroom B	**117** Star Formation I Potomac Ballroom C
	118 The Sun Maryland Ballroom C			
10:15am	[illegible] Conference, 10:15am-11:15am, Chesapeake D/E			
11:40am	**111 Plenary Session:** Linking Visualization and Understanding in Astronomy, Alyssa Goodman (Harvard-Smithsonian CfA), 11:40am-12:30pm, Potomac Ballroom A			
	Career Hour 1: Having the Right Stuff: Outstanding Resumes/CVs for Outstanding Career Opportunities in Academia and Industry, 12:30pm-1:30pm, National Harbor 2			
[illegible]:45pm	**120 Town Hall:** HAD Business Meeting, 12:45pm-1:45pm, National Harbor 5			
	121 Town Hall: The International Astronomical Union: Roles and Goals, 12:45pm-1:45pm, Potomac Ballroom D			
	122 Town Hall: The NASA Kepler Mission Town Hall: 2014 and Beyond, 12:45pm-1:45pm, Potomac Ballroom C			
	123 Town Hall: WGLE Town Hall, 12:45pm-1:45pm, National Harbor 4			
	124 Town Hall: NSF Town Hall, 12:45pm-1:45pm, Maryland Ballroom C			
1:30pm	Amateur Talk: Origins of Habitable Planets, Alycia J. Weinberger (Carnegie Institution of Washington), 1:30pm-2:00pm, Maryland Ballroom A			

Enjoy the ride!!

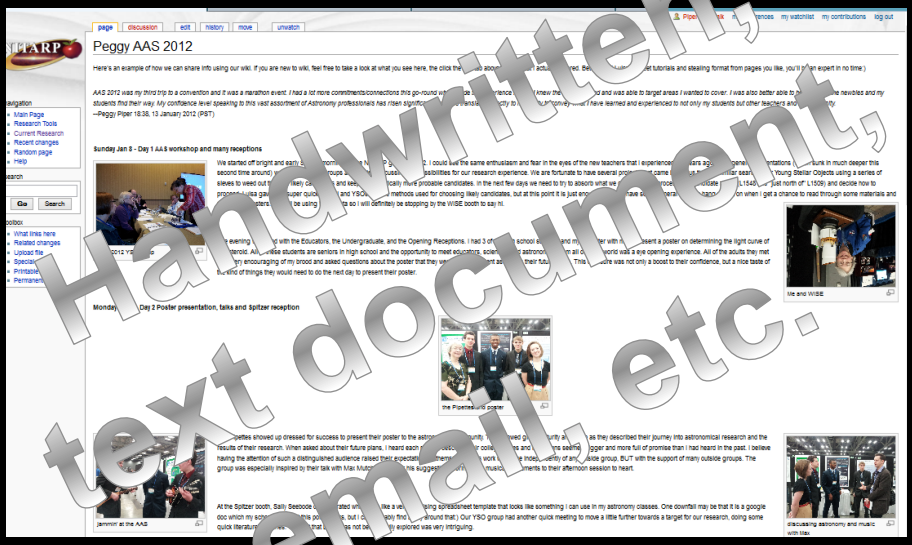
Scavenger Hunt



Scavenger Hunt - Wiki??

Scavenger Hunt

Scavenger Hunt

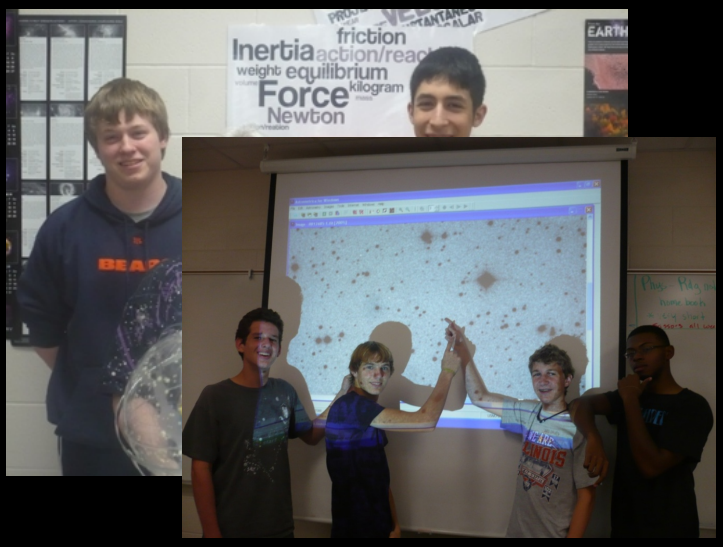


Scavenger Hunt

Jumping into the challenge

Chosing your students:
http://nitarp.ipac.caltech.edu/resource/19
Search NITARP NASA
go to Resources

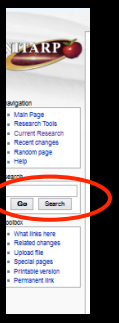
Jumping into the challenge

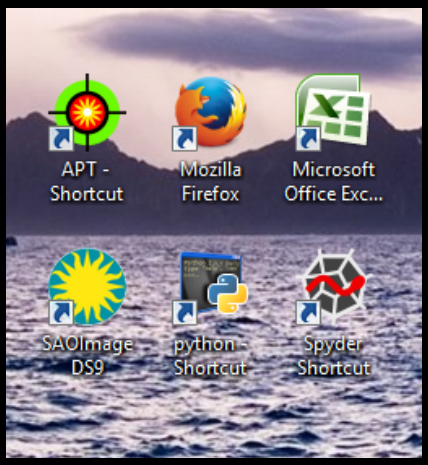


Jumping into the challenge

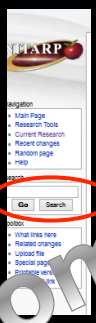
Jumping into the challenge

Spring – Prepare for Caltech



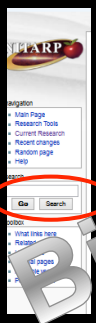


Spring – Prepare for Caltech



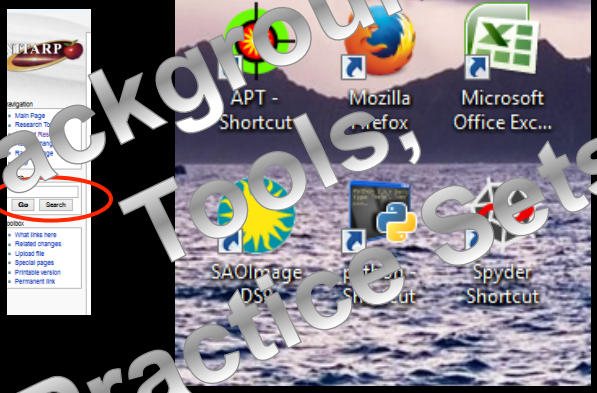
Communicate!!

Spring – Prepare for Caltech



Big Picture

Spring – Prepare for Caltech

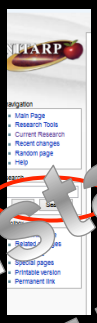


Background, Tools, Practice sets

Spring – Prepare for Caltech

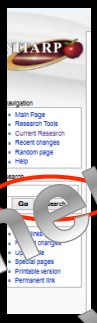
Use your experts!!!

Spring – Prepare for Caltech



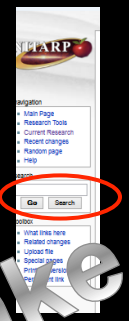
Install and use your software!!

Spring – Prepare for Caltech



Cherry pick for your kids

Spring – Prepare for Caltech

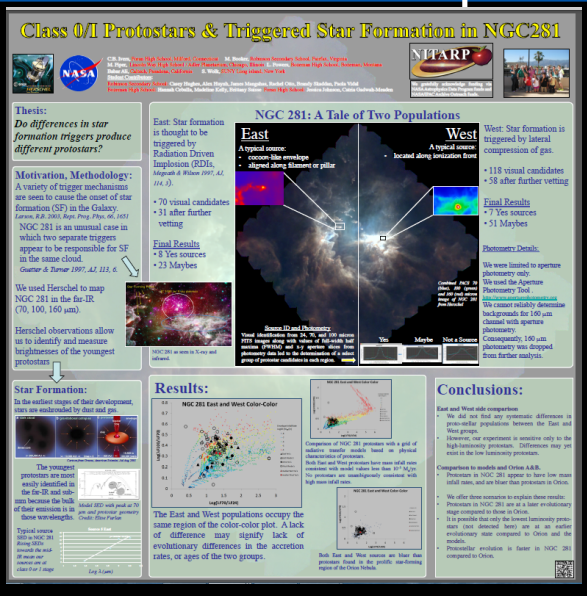


Take ownership!

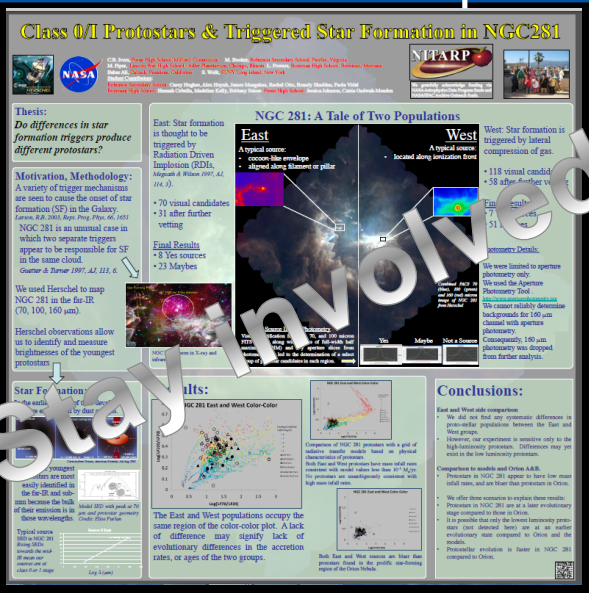
Summer Visit

Summer Visit

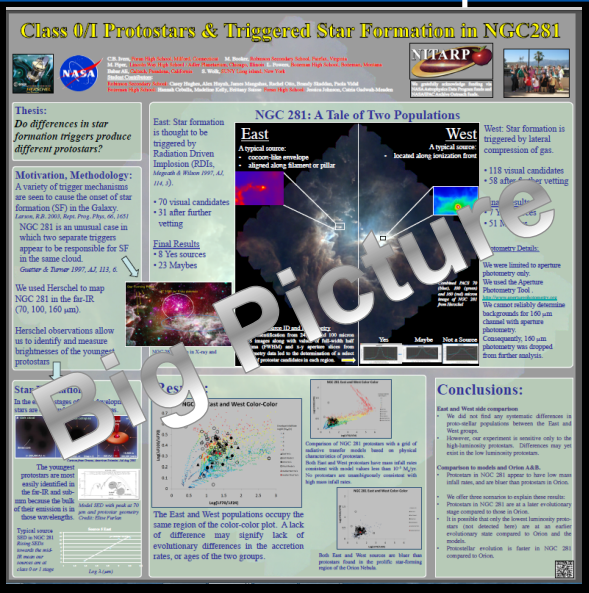
Fall Follow up



Fall Follow up



Fall Follow up



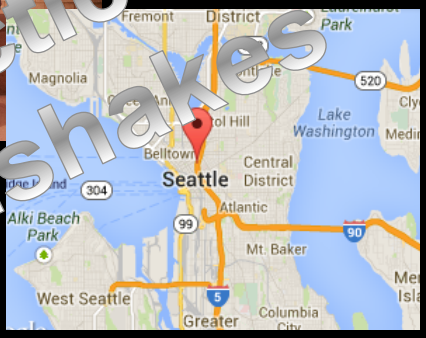
AAS 2015

AAS 2015

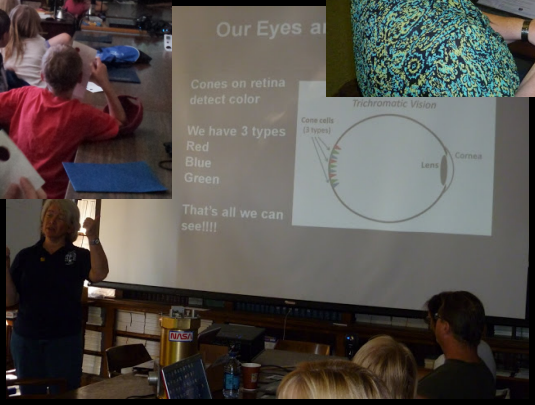
Rinse and Repeat with kids!!!

AAS 2015

Practice handshakes



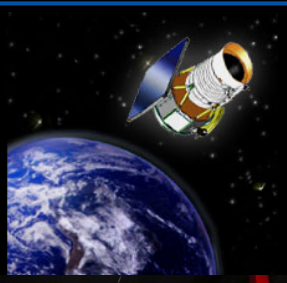
Pay It Forward!!!



Pay It Forward!!!

Start with what you know

- IASC - International Astronomical Search Collaboration
- WISE - Wide-field Infrared Survey Explorer

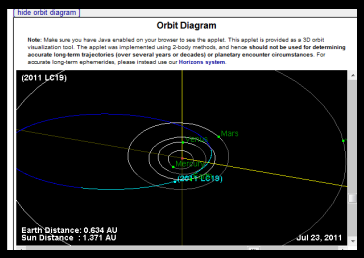


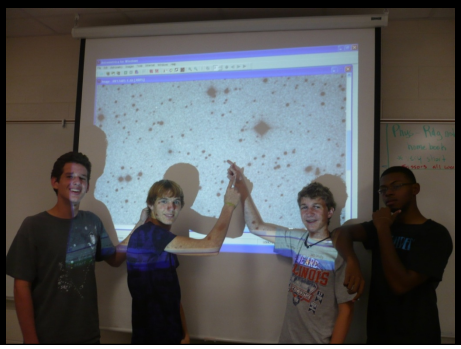
- WISE pinpoints location
- Bob Holmes, Charleston, IL, provides mulitple ground based images
- IASC assigns image sets

Pay It Forward!!!

- Image Processing
  - Astrometrica
- Online Resources
  - Minor Planet Center for Ephemeris
  - JPL Near Earth Program for orbit diagrams and known info
- Provide location to MPC to help better define their orbits and…

LWN
Asteroid Hunters
Saving the world!!!

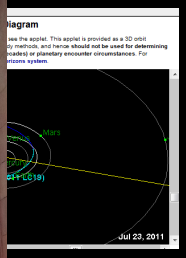




Pay It Forward!!!

- Image Proces
  - Astrometric
- Online Resou
  - Minor Plane Ephemeris
  - JPL Near Ea for orbit dia known info
- Provide locati help better de orbits and…

LW
Asteroid H
Saving
worl



Pay It Forward!!!

SOFIA IR materials

- Color Filters
  - Understand how eye works
  - Relate to use of filters for other wavelengths
- IR detectors
  - Digital cameras "see" IR
  - Solar cells collect IR
  - IR video camera – new**
- Python Programming
  - Used to gather and analyze data from camera (HAWC)
  - Basic programming in Physics classroom

Search – SOFIA Active Astronomy Links at – starsatyerkes.net

Pay It Forward!!!

SOFIA

- Color
  - Un
  - Re
    oth
- IR de
  - Dig
  - So
  - IR
- Pytho
  - Us
    dat
  - Basic programming in Physics classroom

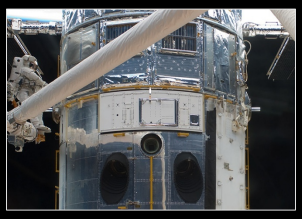
omy

NASA's Infrared Missions

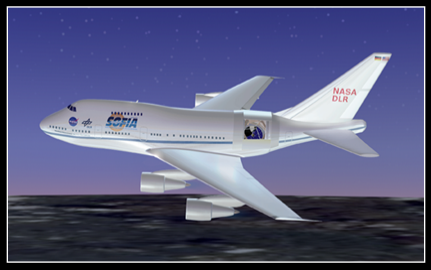
Spitzer Space Telescope

WISE

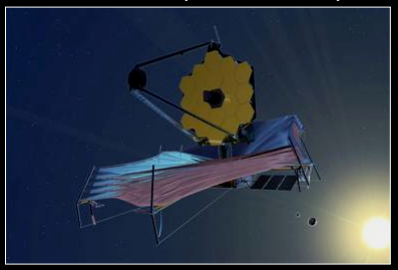
Hubble WFC3 2009



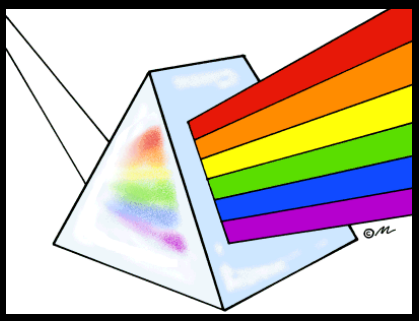
SOFIA



James Webb Space Telescope



White Light



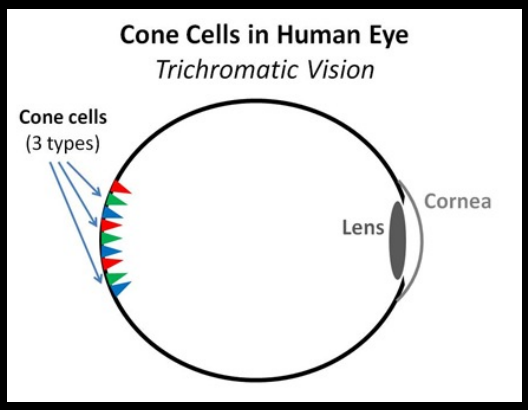
Contains all the frequencies of light.

Our Eyes are Detectors

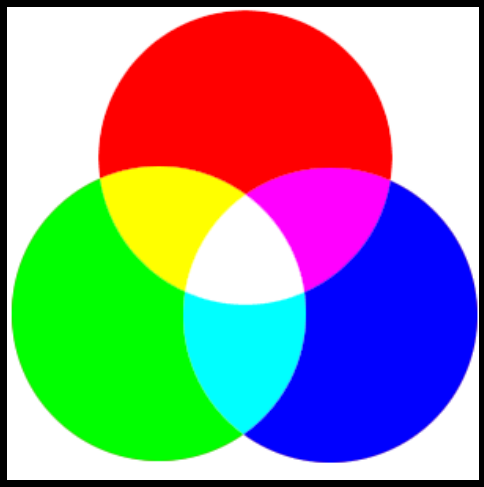
Cones on retina detect color

We have 3 types
Red
Blue
Green

That's all we can see!!!!



Mixing Colors of Light



Red, Green and Blue cones are each stimulated by certain frequencies.

Our brain mixes colors to give us all the colors of the spectrum.

Gel Color Code

- **Red – shows in red, disappears in others**
- **Blue – shows in blue, disappears in others**
- **Green – shows in green, disappears in others**
- **White – shows in all three gels**

*our red works the best!

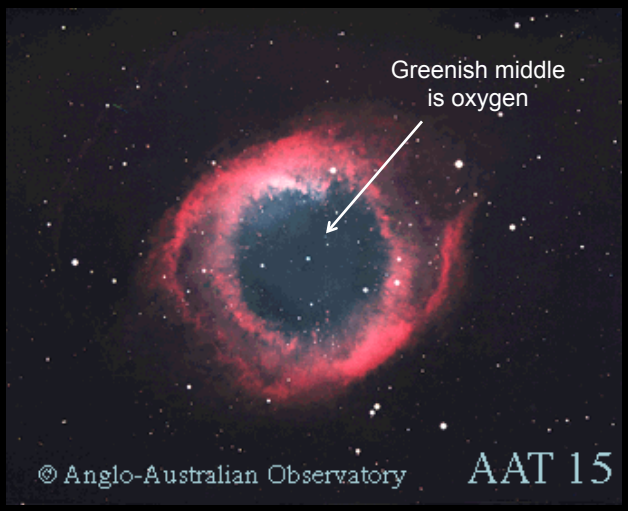
Gel Color Code

- **Red – shows in red, disappears in others**
- **Blue – shows in blue, disappears in others**
- **Green – shows in green, disappears in others**

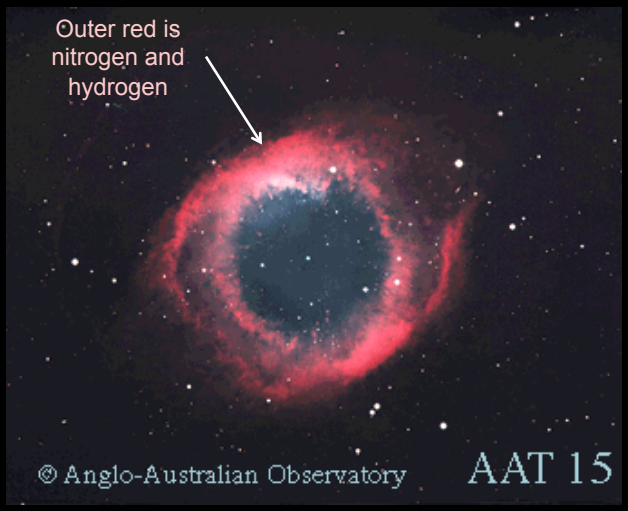
*our red works the best!

Helix Nebula

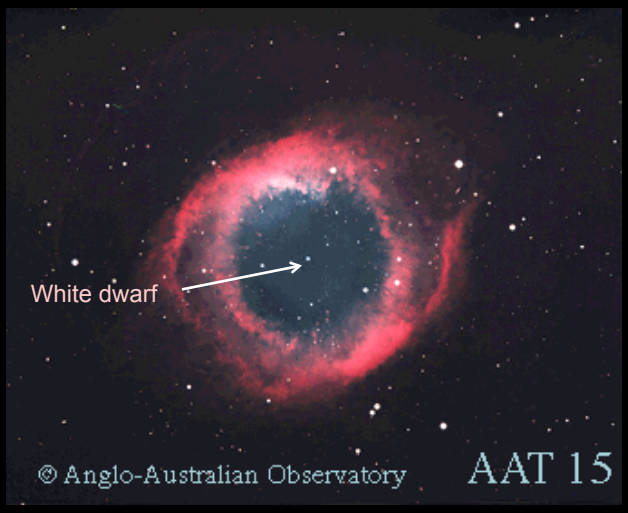
Helix Nebula



Helix Nebula

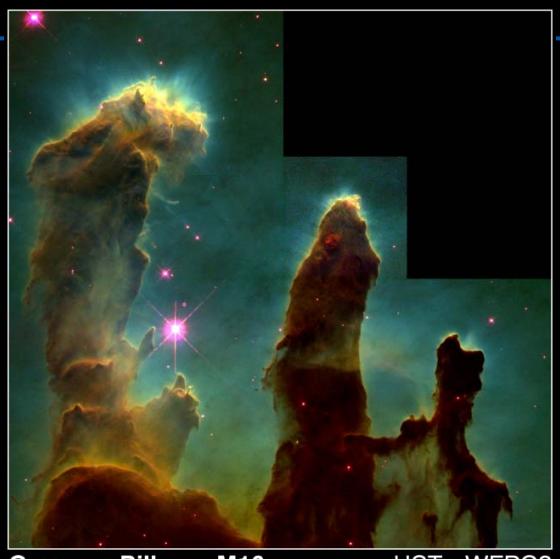


Helix Nebula



Gaseous Pillars · M16 HST · WFPC2

PRC95-44a · ST ScI OPO · November 2, 1995
J. Hester and P. Scowen (AZ State Univ.), NASA



Gaseous Pillars · M16 HST · WFPC2

PRC95-44a · ST ScI OPO · November 2, 1995
J. Hester and P. Scowen (AZ State Univ.), NASA

Red = singling ionized sulfur

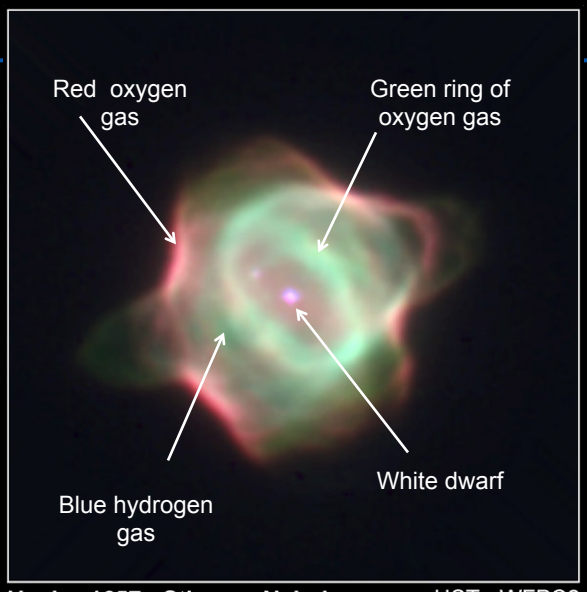
Green = hydrogen

Blue = doubly ionized oxygen

Planetary Nebula
An exploded star!

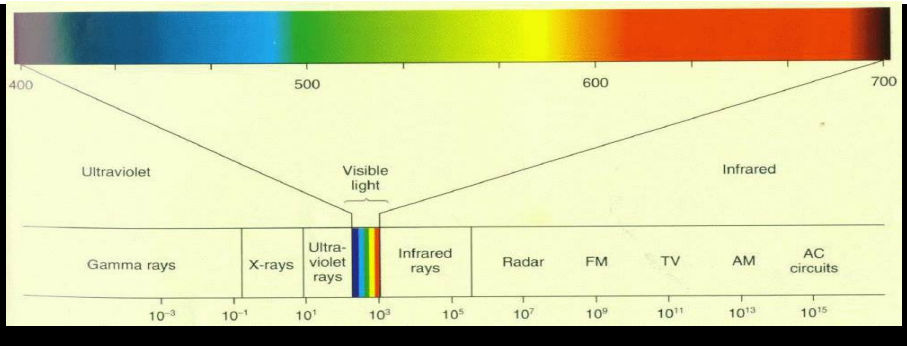
Henize 1357 • Stingray Nebula HST • WFPC2

PRC98-15 • ST ScI OPO • April 2, 1998
M. Bobrowsky (Orbital Sciences Corp.) and NASA



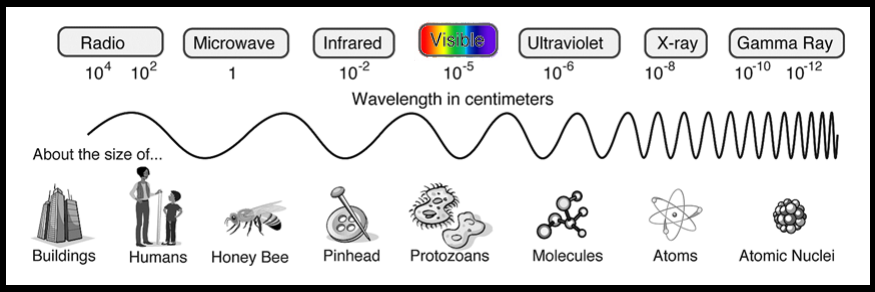
Henize 1357 • Stingray Nebula HST • WFPC2
PRC98-15 • ST ScI OPO • April 2, 1998
M. Bobrowsky (Orbital Sciences Corp.) and NASA

Don't Listen to Mrs. Piper she's old school



The Spectrum of Light

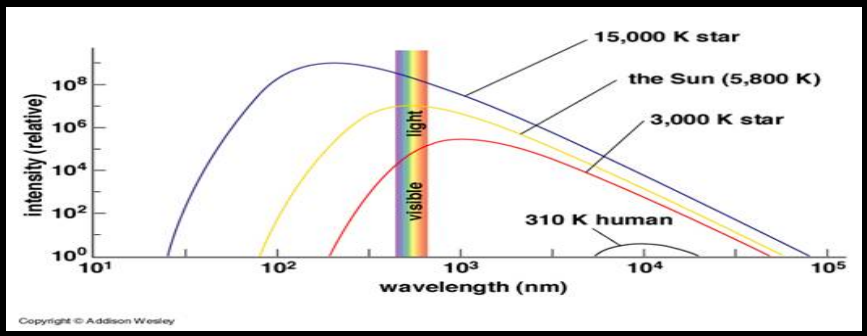
- Visible light is a tiny fraction of the *Electromagnetic Spectrum*
- Gamma rays--billions of waves per inch
- Radio waves--up to miles-long wavelengths



Low Energy Waves

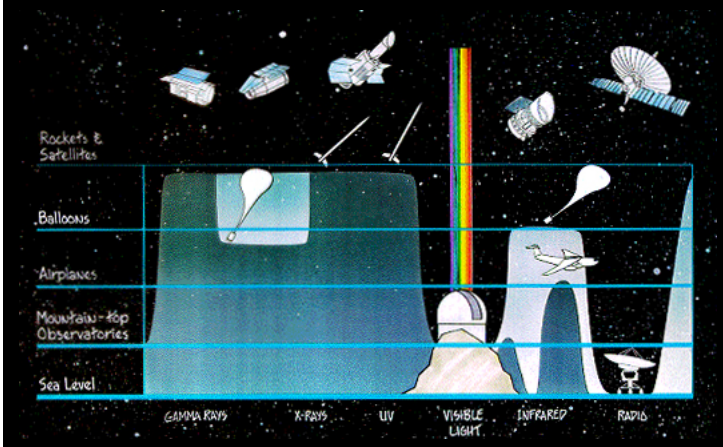
High Energy Waves

The Physics of Light



- **All objects in the Universe emit light depending on their temperature.**
- **Cool objects emit primarily long wavelength light**
- **Hot objects emit primarily short wavelength waves**

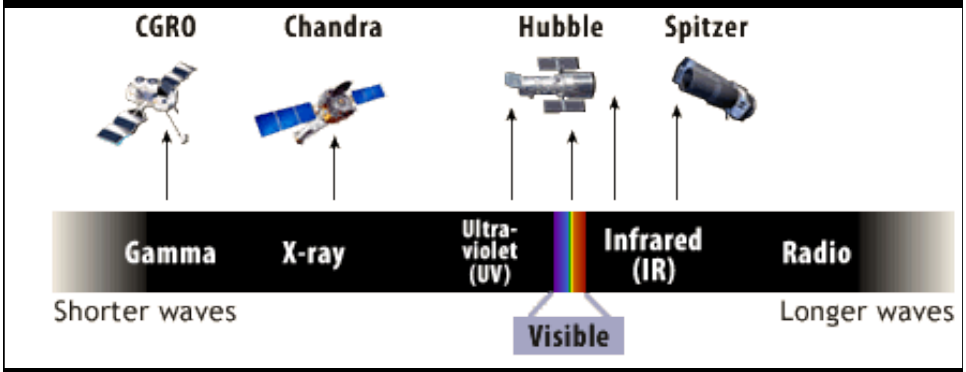
But there's a Challenge...



- Earth's atmosphere blocks or absorbs almost all incoming radiation
- Even mountain-top observatories get a limited view of the universe

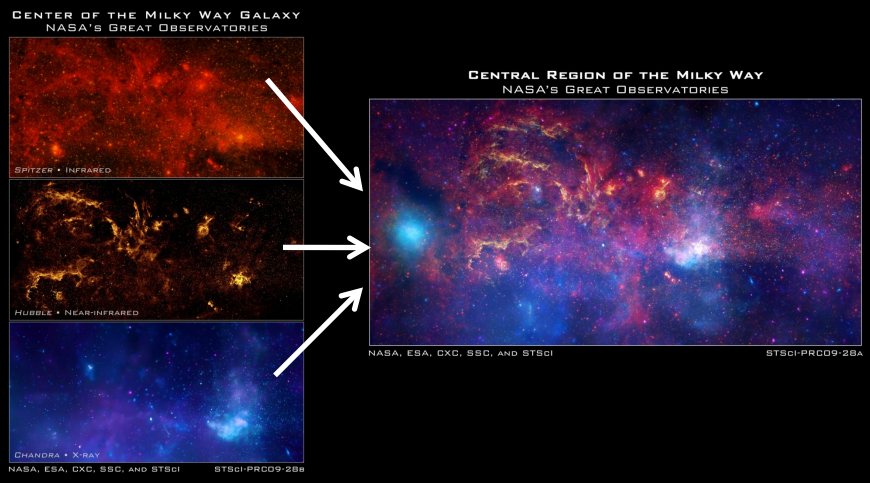
Infrared telescopes need to observe from high altitude or in space

NASA Great Observatories



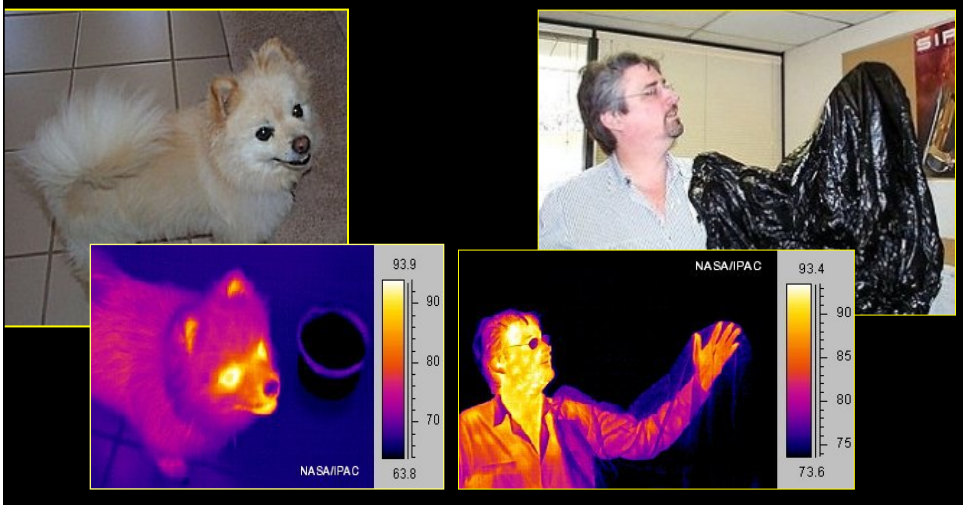
Telescopes capture images in different frequencies
(CGRO is no longer in operation)

Putting them all together



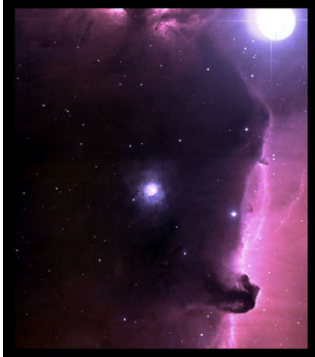
We all produce . . .

. . . Infrared Light



Why Study Infrared?

- Visible: dark nebula, heavily obscured by interstellar dust ("Horsehead Nebula")
- Near-Infrared: dust is nearly transparent, embedded stars can be observed forming
- Mid- and Far-Infrared: glow from cool dust is directly observable



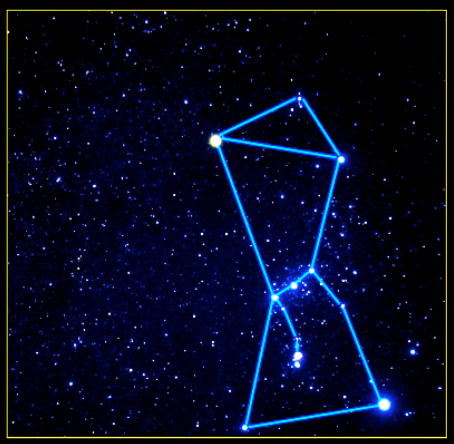
Visible

Near Infrared

Mid-Infrared

Two Views of Orion

Visible Light (Akira Fujii)



Infrared (IRAS)