**NASA DIRECT-STEM**

**Summer Pre-Trainee Research Intensive Workshop Plan**

**May 29-31, June 4-5, 2018**

**9:30AM-2:30PM**

Day One (May29th Tues.):

1. Research project introduction by faculty members and/or their research students (Dr. Guo-Computer Science Group; Dr. Terebey-Astrophysics group; Dr. Li, Lopez, Ye-Earth Science group)
2. Each student selects a research project and form a team with other students who have similar research interest (2-3 people one team) for collaborative research development
3. Student teams start data collection, computation, and analyses

Day Two (May 30th, Wed.): Students continue on computation and analyses under the guidance of faculty/research students

Day Three (May31st, Thurs.): Students continue on computation and analyses, and start to produce results, and making figures/graphs.

Day Four (June 4th, Mon.):

1. Students synthesis literature review (1 or 2 manuscripts) and prepare PowerPoint presentation
2. Compile components of your presentation: title of your research; introduction; research questions; data; methodology; results; discussions or future research

Day Five (June 5th): Students give research presentations. (*Please invite your family members and interested friends to attend our presentations)*.

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**Summer Pre-Trainee Research Intensive Workshop**

June 1, 2017   
KH-D4053, E&T C255E, E&T C255G

**Agenda**

9:00-9:15 Welcome, Announcements on the week plan

9:15-10:15 Introduction to Faculty and Research Projects

* **Dr. Jiang Guo, Computer Science**—Adam Berman and Luis Fisher

“Quality of Service of Cloud Computing”

* **Dr. Jingjing Li, Geosciences & Environment**— Beatriz Aguilar, Robin Sehler, Brady Ross

“Hurricane analysis using satellite precipitation data”

* **Dr. Hengchun Ye, Geosciences & Environment**

“Changing precipitation characteristics under a warming climate”

* **Dr. Sonya Lopez, Civil Engineering**—Joseph Lucey, Gabriela Martinez, Isabel Escobar-Sanchez

“Spatial Interpolation Methods and application to Snow Hydrology”

* **Dr. Susan Terebey, Physics and Astronomy (**E&T C255G) Andranik Mkrtchyan, Sam Gallardo “Finding Protostar Masses Using ALMA”
* **Dr. Daphne Liu & Dr. Borislava Gutarts, Mathematics**

10:15-12:00 Q&A, choose a project and clarify goals and details with faculty/research students

12:00-12:30 *Lunch Break*

12:30-1:30 Begin projects on Data Analyses and Computation (with the help of

Faculty and research students)

1:30-2:00 Each student group shares what they have accomplished, what were the challenges, and next steps (5 minutes each)

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**Summer Pre-Trainee Research Intensive Workshop**

June 2, 2017   
KH-D4053, E&T C255E, E&T C255G

**Agenda**

9:00-9:15 Sign In and Announcements (KH D4053)

9:15-12:00 Break into small groups and work on computation and data analysis

You may utilize KH D4046, D4053, or Dr. Lopez and Dr. Terebey’s groups

may use E&T labs.

12:00-12:30 *Lunch Break (KH D4053)*

12:30-1:30 Continue projects on data analyses and computation.

Think of ideas for your presentation.

DIRECT-STEM faculty and research students will assist your group.

1:30-2:00 Each student group shares what they have accomplished, what were the challenges, and next steps (KH D4053)

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**Summer Pre-Trainee Research Intensive Workshop**

June 5, 2017   
KH-D4053, E&T C255E, E&T C255G

**Agenda**

9:00-9:15 Sign In and Announcements (KH D4053)

9:15-12:00 Break into small groups and work on computation and data analysis

You may utilize KH D4046, D4053, or Dr. Lopez and Dr. Terebey’s groups

may use E&T labs.

12:00-12:30 *Lunch Break (KH D4053)*

12:30-1:30 Continue projects on data analyses and computation.

Think of ideas for your presentation.

DIRECT-STEM faculty and research students will assist your group.

1:30-2:00 Each student group shares what they have accomplished, what were the challenges, and next steps (KH D4053)

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**Summer Pre-Trainee Research Intensive Workshop**

June 6, 2017   
KH-D4053, E&T C255E, E&T C255G

**Agenda**

9:00-9:15 Sign In and Announcements (KH D4053)

9:15-12:00 Break into small groups and work on your presentation

12:00-12:30 *Lunch Break (KH D4053)*

12:30-1:30 Continue presentation planning

DIRECT-STEM faculty and research students will assist your group.

1:30-2:00 Each student group shares what they have accomplished, what were the challenges, and next steps (KH D4053)

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**Summer Pre-Trainee Research Intensive Workshop**

June 7, 2017   
KH-D4053

**Agenda**

9:00-9:15 Welcome, Dr. Hengchun Ye=

9:15-11:45 Student Presentations

**Presentation Order:**

1. Armando Serrano, My Hoang
2. Isaac Cano, Rolf Castro
3. Antonio Lemus, Aldo Adame
4. Rory Baker, Georgina Campos
5. Robert Brookfield, Miguel Avalos
6. Anthony Cajero, Elizabeth Metzler-Winslow
7. Ana Cortes, Liz Matos
8. Jocelyn Luna, Jose Ramirez
9. Rosa Mejia, Marilyn Zepeda
10. Sonya Lopez Student Groups

**Computer Science**: “Quality of Service of Cloud Computing”

**Geosciences & Environment**: “Hurricane analysis using satellite precipitation data”

**Geosciences & Environment**:“Changing precipitation characteristics under a warming climate”

**Civil Engineering**: “Spatial Interpolation Methods and application to Snow Hydrology”

**Physics & Astronomy**:“Finding Protostar Masses Using ALMA”

12:00-1:00 *Lunch Break*

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*Thank you for your hard work this year and throughout this summer workshop! If you would like to continue as a pre-trainee next year, but have not applied yet please contact me at* [*kjohnson2@calstatela.edu*](mailto:kjohnson2@calstatela.edu)*.*

*Katrina Makkouk, Program Coordinator*