CIDER 2014 Summer Program Feedback Survey: Summary of Data

SUMMARY: SENIOR PARTICIPANTS

Prepared by Research Group, Lawrence Hall of Science, September 4, 2014

Please indicate your role/position during the CIDER II 2014 Summer Program (Select all that apply):

Answer Options	Response Percent	Response Count
Graduate Student	4.0%	1
Post-Doctorate Researcher	0.0%	0
Instructor - Lecture	72.0%	18
Instructor - Tutorial	44.0%	11
Instructor - Research Group	56.0%	14
	Total responses	25
	Skipped question	0

INFORMAL/UNSTRUCTURED SESSIONS

Did you participate in the unstructured sessions during June 22 - July 5?

Answer Options	Response Percent	Response Count
Yes	50.0%	12
No	50.0%	12
	Total responses	24
	Skipped question	1

Please share your impressions about the unstructured sessions, including (a) what you found useful and (b) in what ways you benefitted from participating in these sessions.

It was useful to have some time to work in the same space with a colleague on a joint project.

useful: - interesting talks - opportunity to think about research questions for students - informal discussions - time to work in my office

Actually, I was disappointed in the unstructured session. I accomplished very little of what I would not have accomplished back home, although doing it in Santa Barbara was far more pleasant! The informal lectures were useful (although one was repeated in the formal session).

I've enjoyed these in past years and I think this is a great way to "kick off" the CIDER program.

I used this time to run a CIDER workshop - geoneutrino working group. I also was able to follow up our 2-day meeting with follow-up work and send out contacts and reminders of work commitments

It was useful to be around colleagues that I am not usually around and have time to discuss interesting scientific questions with them in such a relaxed setting.

It was useful to get to know the institute and working environment, as well as connect with other instructors prior to the instructional part with a full program. Research talks during this time were a good way to get to know the other instructors and their fields.

I invited a new collaborator to participate in the unstructured sessions. We were able to jump-start a new research project. I also have informal time to interact with the other participants.

Great time to discuss science with colleagues in a non-structured, and non-time-limited venue.

I loved the unstructured part of the program. I made significant progress on a couple of manuscripts with one of the other senior participants and also learned quite a bit by attending many of the talks in the geoneutrino meeting.

It was great to have the opportunity to collaborate on projects without the time commitment of the

lectures/tutorials/research group meetings. Some of the mid-day talks were a distraction of limited utility.

I enjoyed the formal talks, but most of all the chance to spend many hours at once working with colleagues. Benefit will show up in papers -- we did come up with some new ideas too.

Please share your reasons for not participating in these unstructured sessions?

Unfortunately the time commitment was too long to participate for the whole of CIDER. I chose to just participate during the lectures/tutorials.

Schedule conflict.

Scheduling difficulties.

Just time constraints. 4 weeks I can do (barely), 6 weeks no.

not asked to participate in the early sessions due to desire to even out attendance of senior people and include some at the end

Not present

I only had 3 weeks available, and it was important to have instructors available in the last 2 weeks.

Scheduling

Not compatible with my schedule, didn't know of any urgent collaborations to nucleate.

Not available during these two weeks.

The whole program is too long to attend, and I've gotten the most out of the lectures & project time, so I timed my visit for those instead.

Please share any suggestions you have about how to attract more members of the community to the informal/unstructured sessions in the future.

The unstructured session is too unstructured. Some effort to organize discussion topics before hand, perhaps appointing a discussion leader would be useful.

This is a tough one. I think most folks are aware of the "unstructured sessions". The issue isn't making folks aware the unstructured session. Folks generally don't have a lot of time to spare in the summer, so will tend to attend the portion of the program that is structured.

word of mouth about the great opportunity

I think people would come if it was explained better.

Participants could be encouraged (more?) to invite collaborators

It could perhaps be made more clear on the CIDER website that all are encouraged to attend the unstructured portion and that this is a good opportunity to work in a low-distraction environment with unlimited coffee and a nice beach just a few hundred feet away where you can go to think while walking. I think that moving the unstructured portion to the end of the program will be a good thing and may be really useful for senior participants who start collaborative projects/proposals during the structured portion of the program.

Moving the unstructured sessions to the end of the program might work better.

Those hoping to come should "bring" with them the colleagues they would like to work with (that it, get them to apply).

OVERALL EXPERIENCE

Please share any comments/feedback you have regarding the *overall quality* of the CIDER II Summer Program. *Please note, you will be asked specific questions about the lectures and tutorials at a later point*.

The quality of the students and senior participants is excellent. Discussion during lectures is excellent. Lectures were of mixed quality. There was no time to work with peers, or do anything really, during the tutorial weeks - which were over scheduled

Overall excellent. My one regret is not staying an additional week!

I have found that, over the years, the lectures and tutorials have been of increasingly higher quality. I'm impressed by this trend over time.

I only participated during the 2 week lectures and tutorials portion.

it was the best cider I hade attended (4 past cider events)

Tutorials were informative and I learned a lot about fields outside of my own specialty. Research portion led to progress on important new questions.

Overall quality was outstanding.

Very high quality, with a premiere clientele at both the instructor and student/post-doc level.

Really good program

overall quality continues; have attend 3 times before and it seems to work well; some greater diversity in specialties would be welcome, especially inclusion of dynamo people and high frequency/exploration seismology

Best one I have attended (2004, 2006, 2014)

Overall, CIDER is easily the best scientific summer program I've been involved in. The interaction between junior and senior participants across the disciplines is unparalleled, and the structure works well for both educating and facilitating new research collaborations.

It was great.

The overall quality was very high, all aspects of the program worked well together.

I was very pleased with the summer program. I only regret that i was not able to participate very much in the group projects.

All of the presentations and tutorials that I saw (Week 1) were well prepared and appropriate. The only criticism of the program is that it may be a little too tightly scheduled with less time than I had hoped for interactions, once the students arrived.

I thought that the program was excellent and a big success. The quality of the graduate student projects and the amount of progress made was very impressive.

This is probably the best investment of time I make each year, and the program is so well run that it's practically painless from the logistical side of things.

Excellent program. Brings together a crop of very good, well-prepared, enthusiastic young researchers and a bank of really top-notch instructors. The lecture and tutorial environment is dynamic and interactive. The process of research group formation and topic definition is interesting and seems to produce good working groups. On the whole, very well-run and impressive.

This is truly an excellent program, head and shoulders above other summer programs, particularly in forging scientific and mentorship ties between junior and senior participants.

The program is of extremely high quality. It gives all participants (including senior participants, which is rare) the opportunity of exploring disciplines beyond their comfort zone and learn new skills, which is incredibily important for this community to continue conducting high level interdisciplinary science.

Fantastic. I intend to go as often and long as I am able in the future if I get selected to attend.

Excellent. It's the right content, and I love the increased interaction between faculty and students that develops throughout the sessions.

QUALITY OF LECTURE AND TUTORIAL SESSIONS

Did you participate in the lecture and tutorial sessions?

Answer Options	Response Percent	Response Count
Yes	100.0%	24
No	0.0%	0
	Total responses	24
	Skipped question	1

Please share your impressions regarding the *content* of the *lectures*. Include any comments regarding the balance between disciplines and the balance between background information and cutting edge research presented.

Many of the lectures had too much background information - and some failed to present that information in a useful way for people outside of the discipline. On the other hand, some lectures were superb!

Overall excellent. Good balance of topics.

The lectures and tutorials are all highly useful and balanced between disciplines. The organizers did a great job.

Overall, the lectures were fantastic. It was clear that the instructors put a lot of effort in to producing their lectures--I certainly did. Even as a senior participant, I found myself learning new things daily from the lectures. Well worth it!

This year's lecturers did a great job of covering the fundamentals of their discipline.

Very informative.

The lectures were really good and presented a good balance.

Content of lectures was very strong; there are always a few who present their own individual-centric review (focused on their own research) versus an overall review of the field in the general lectures (as opposed to the specific research lectures), but most successfully navigated this challenge.

I would have liked a bit more mineral physics, with both foundational and cutting edge material.

need more input from high frequency seismic imaging

The week I was present, the balance was good and the lectures clear. Varying quality of instruction. Some more junior lecturers not as confident and did not pitch at the right level.

I think the content of the lectures was good. Due to time constraints with the extensive questioning (a good thing!), there was often not quite enough time to get to state-of-the-art research, but this was necessary in order to make the basics accessible to all.

The lectures were great.

I thought that the balance between disciplines worked well, and made going to the next lecture interesting. The lectures were more geared as background for current cutting edge research, i.e. to make cutting edge research topics and presentations outside of one's own field accessible. This worked very well overall.

I thought that the lectures were outstanding. A good balance of background details and indications of where the major questions and problems reside.

Nice balance between geochemistry and geophysics, with a bit of cosmochemistry and planetary geophysics mixed i.

I thought that in general the quality of the lectures during the first week was outstanding. I found the lectures during the second week to be somewhat less useful on average. I think that the balance at this CIDER was decidedly towards background information and that this is a very good thing as the lectures need to bring the graduate students up to speed so that they are in a good position to learn about cutting edge research.

The balance of disciplines was perfect, cutting across typical CIDER topics. Some talks were more technical than others, but I think it should be left to the discretion of the presenters since they are the experts in the materials, rather than hardwiring any rules about talk content.

I didn't hear all of them. Only 8 or so out of 20. But these were broadly very good. Enough background to bring the whole group along, enough research to engage both the students close to the research area and the other instructors in the room.

The content of the introductory lectures was excellent, and in my opinion, better than in previous CIDERs (even though the intro lectures in those were very good). The balance between background information and cutting edge research presented was good in all fields except mineral physics, which had a relatively sub-par lecture, which was inadequately tied with the introductory, excellent lectures by Faul.

Impressions about content of lectures continued

Content was very much appropriate for an interdisciplinary audience. The content was focused more on background than cutting edge research, which is necessary to put everybody on equal footing. This is a breath of fresh air compared to standard conferences and workshop, where only the specialists are not lost.

I like the diversity in style and content; some were intended to explain basic concepts, others to convey state-of-the-art. I think this mix was good.

Very high quality lectures with the right information. The lecture sequence seemed more rushed this year in previous, though I can't really identify why -- nothing major got added to force dropping other content. To meet the goals of the sessions for the students and postdocs, I did feel as though there was a mis focus on the details of the cutting edge research without quite enough on the background information of the subdisciplines for those outside that discipline. This is a minor criticism, though, as generally the response of the room corrected course when necessary!

Please share your impressions regarding the *organization, structure, pace, and workload* of the *lectures.* Please include comments about opportunities for interactive discussions, lecture styles that worked well, lecture styles that didn't work well, and the balance between lectures and tutorials.

The opportunity for discussion was excellent. Lectures that simply presented derivations from text books were not useful. The balance of lectures and tutorials was fine but the formal events (lectures, tutorials) were too numerous.

Might be good to have a little more time for informal interaction in the two weeks of formal lectures. Otherwise, no real complaints. Of course, some people have a better lecturer style than others. A few lecturers, although the content was excellent, seemed as they were having a conversation with themselves rather than engaging the audience. Some hints: speak loudly and at the audience rather than the slides. The content, however, was uniformly good. One other thing: limits on upload size meant that presentations with movies could not be uploaded. Need either to increase file limit or have a separate site for movies (which are quite valuable).

I wouldn't change the balance between lectures and tutorials.

For the most part the organization of the lectures were good. My only complaint was the organization of the mineral physics lectures. The first two lectures would probably have been better received during the second week, whereas lectures 3 and 4 probably should have gone first. That appears to have been done that way due to the travel schedules of the instructors, but some of that could have been avoided. I liked the pace of the lectures. Although a 1.5 hour lecture can seem daunting, it worked well for all of the questions that came up throughout the lectures. My favorite lectures were given by Jessica Irving, Paul Asimow, Lars Stixrude and Bruce Buffett.

I would not change anything

Perfect pace.

The pace is intense but manageable. There was lots of time for questions and discussions.

Discussions were highly interactive, and that provided for lots of interesting and revealing back-and-forth. I was impressed that at least one less formal lecture style, on Venus tectonics, was pulled off with aplomb.

The balance was pretty good.

lectures need to be livened up some more with some type of different participation, perhaps joint lectures from two different disciplines would liven things up

For me all worked, they were interactive, lots of questions, good balance of lectures and tutorials, though there was some overlap. It seemed strange to have tutorials on both Burnman and Hefesto.

I think the most valuable thing about the lectures was the open questioning atmosphere of the program. Both junior and senior participants were very involved with the presentations throughout, and all the lecturers did a good job of accommodating this atmosphere.

It was all great.

Overall the lectures worked well, with discussions taking place at any point during the lectures. Sometimes this jumped ahead a little, but it served very much to clarify issues for further understanding of the talks and generated interactive discussions. Because of the relatively high level of the lectures and the time constraints for each lecture, too extensive question and answer sessions would not be entirely practical, and may not be as interesting for other senior personnel. As it was I learned from the other lecturers as well. The balance between lectures and tutorials was about right.

Impressions about organization continued

The lecture style were fairly similar. Most of the presentations were based on powerpoint or similar presentation tools. Most of the interactive discussion arose through questions from the participants or clarification from senior participants. I attended most of the tutorials. The primary goal was to introduce participants to the toolbox used by the different fields. There was not a lot of time for self-discovery during the tutorial (e.g. free time to explore the implications of the toolbox), but I would not recommend any significant change to the tutorials. Students learned how to use the tools. This prepared them for the project portion of the program.

Pace was fine, but there was a little bit too much structured activity. Perhaps reducing the number of volunteered talks at the end of the day would be good.

Interactive lectures were the best (for example, Laurent's tour of Venus and Mars) but this type of lecture always ran over. Straight up research talks were also nice, but not always as relevant. Overall I think it is good for students to see a wide variety of lecture styles as it allows them to see what might or might not work for them, plus it allows for different styles of learning to be engaged.

Most presentations took questions mid-stream and kept things well-clarified. However, most instructors filled close to their whole 90 minutes and left less time for discussion at the end. Laurent Montési's Google Venus tour was particularly innovative and daring. Some presentations were just boring, but not for any systematic reason apart from the presenters' style and tone.

Most of the lectures were excellent, especially the lecture on redox by Cottrell, the lecture on geodynamics by McNamara, and the lecture by Shahar. The factor common to all these lectures was clear organization and a substantial effort to understand the audience background and explain concepts clearly to them. The less successful lectures lacked organization (e.g. Panero), were not clearly explained (assumed too much background knowledge - e.g. Panning), and/or were not placed into proper context with respect to previous lectures (e.g. Panero, Lee).

Most lecturers were trying to fit too much information in their presentation That, coupled with the reliance on prepared slide shows for most presenters, leaves little time for open discussion. Good thing the attendance didn't typically let the lecturers just go on! I liked the fact that topics where mixed every day, which keeps everybody involved everyday. I attended only a couple of tutorials (Hefesto and Melts), and they were helpful, hands-on. However, I didn't find the introductory lectures very helpful. Better to let people play with the software following the guided exercises. I liked that the tutorials were in the afternoon, and it gives the opportunity of attendees to skip some less relevant tutorials to do some of their own work if needed...

No complaints about anything. I found some lectures hard to keep up with, and others were very elementary -- but in the latter I always learned something new.

I have preferred lectures that are more chalk board than powerpoint, which wasn't possible in our lecture room this year. Otherwise, the structure and pace was great. One scheduling recommendation - many of us joined halfway through the two week session to give lectures on the first day we were there. It was difficult to tune those lectures without having seen how the dynamics of the group and content of the discussions had progressed up until that point. I pay a lot of attention to who I think my audience is when planning a lecture, and this made it a bit more difficult.

Were you comfortable asking questions or making comments during the lectures?

Answer Options	Response Percent	Response Count
Yes	100.0%	24
No	0.0%	0
	Total responses	24
	Skipped question	1

QUALITY OF RESEARCH GROUP ACTIVITIES

Did you participate in the Research Group activities?

Answer Options	Response Percent	Response Count
Yes	70.8%	17
No	29.2%	7
	Total responses	24
	Skipped question	1

Please share your impressions regarding (a) the process of defining the research topics; (b) format of the *research group activities*.

democratic

This was free flowing and ended in a well defined problem.

I liked the iterative process of defining research topics over the course of a week. The format worked well, with regular updates and opportunities to adjust course.

This was well-done; it is always a challenge to navigate between a fully democratic system and one that assures a broad distribution of topics, but I think this was done well.

It was fine. Somewhat scattered, I think, but that is probably unavoidable.

worked well and efficiently this year

Very organic. It seemed that some topics should have been subdivided and some merged.

The definitions worked well. There was some imbalance in the size of research groups, and it was a little more difficult to focus the work of some of the larger groups, but it generally worked. In general, the definitions were led by the junior participants with feedback from the senior participants, which is the right way to do it in my book. Excluding the seniors completely leads to too much pressure on the junior participants, while having the seniors lead the discussion would keep the junior participants from really owning the problems, and thinking strategically about the kind of problems they would like to approach.

It was organic and done very well by the students. It was great to see how they came up with the questions and figured out how to organize themselves accordingly.

Defining the research projects was not entirely straight forward, but in the end worked well with guidance from the CIDER organizers. Overall positive.

a) I'm not sure that this process worked so well. Democratic voting for projects may not result in the selection of well-defined questions that can be answered using existing data by teams of graduate students in a couple of weeks. It concerned me that many of the groups seemed to be unfamiliar with the literature surrounding their chosen topic. One modification to the topic selection process would be to solicit a list of topics from both the junior and senior participants in the form of questions at the end of the first week. Then, everyone could think about the ideas over the weekend. The following week, anybody who wanted to advocate for a topic could prepare a ~1 page proposal that summarizes the state of knowledge and how a multidisciplinary group would make an important contribution. Then the proposals could be read by everyone and discussed. Some additional time would need to be set aside for this, but I think that the groups would be in a much better position at the start of the workshop if the questions were more clearly defined at the outset.

This should always be student run, and I think it was this year. As usual, there were way to many topics to choose from, but my impression is that it always happens this way. I think the free-form, where the students run the topics with input/guidance from the senior participants works quite well.

The defining process is a little chaotic, and can be hijacked by a few very enthusiastic individuals with single issue focus. Nevertheless, interesting and diverse results emerge on the whole. The use of doodle to repeatedly poll participants was easy and effective. The format seemed good, too, though it is too soon to say what the outcome will be.

The process of defining research topics worked very well, with students taking an active role in this key task. The format of research group activities was also good, though perhaps a clearer delineation of tasks performed by each group member would lead to faster progress.

It's very good to let junior participants define the research topics. However, the lack of structure makes some groups probably not as efficient as they could be. It wasn't clear to me what the final objective really was: start a long-term project or an exercise doable during the program. The lack of clear expectations lead to much hesitation and lost time.

Impressions about research group activities continued

I was very impressed by the way in which groups and topics were created. That almost everyone felt comfortable raising topics in the first week was impressive. Bill did a nice job getting input. By the end of the second week, I felt that the discussion had gone on a bit too long, but overall this part of the program was excellent.

The process of forming the projects is painful, but a necessary process. The format of the activities was fine, but appointed leaders of each group should maybe have a meeting with a few senior participants about what their role is an how to lead the group effectively.

Please share your impressions regarding the *group work styles or dynamics* of your research group. Include comments regarding (a) the organization within the group and (b) the level of interactive discussions and opportunities to participate in the discussions.

excellent efforts by the junior members and great guidance by the senior - good interactions

Good balance between senior and junior input.

Organization was good. The group worked together well.

I liked the self-organizing aspects, and the discussions were highly interactive and incorporated all members.

Pretty good, though a bit more support from senior participants would have been nice.

no strong comments -- everything worked well

My group was quite independent. Given a few pointers they did everything on their own. Some other groups seemed more ill-defined and accomplished less. I think everyone felt comfortable participating though some students more naturally active/passive than others.

I was primarily associated with the Mars group, which had a very independent research style. People generally focused on very specific sub problems, but maintained a significant level of interaction through regular discussions.

The students organize themselves very well. The different personalities fit well together and one or two students seemed to take charge but not overwhelm scientifically. Of the two groups I was a part of, both had lots of interact discussions and everyone was involved.

The two groups I was associated with organized themselves well, and worked together towards their research topics. It seemed that all participants were engaged and contributed.

Once again, I think this is primarily student driven, and as such will reflect the motivation of the students involved. The students seemed to do fine in that regard. Having the faculty there to comment and provide feedback is excellent, and it was good to see the students taking the initiative on leading and seeking out faculty when they needed help.

Students in my group were self-motivated, well-informed, and very cooperative. They naturally formed sub-teams, came up with lots of literature to review, built their software contributions efficiently. Really, they didn't need faculty supervision very much. I was comfortable letting them come to me with questions, or subtly steering discussions to a conclusion and some action items, rather than leading intrusively.

The level of interactive discussions and opportunities to participate was phenomenal and I don't see how it could possibly be improved.

Our work group was large an multidisciplinary. We essentially formed subgroup each focusing of an aspect of planetary evolution viewed as a multi-component system. Most of the work was done by junior participants, which was likely a good learning experience, although some were lacking in guidance. I actually found that the research time was somewhat limited due to the time for lunch and the 4pm research presentations. People did little work after hours, so each subproject was progressing rather slowly, so they were usually working when we should have interactive discussion. It was a lot of individual work with limited exchange. This will likely be better the second week but I won't be there.

I participated in two groups. Very different dynamics. The larger one (Mars) broke into smaller subgroups. The smaller one (metal sulfides) had two hour intense, substantial discussions every day. Both groups got me excited about problems that I had almost given up on. Even if we are unable to make new advances (unlikely) participating in the groups was good for me.

This varied between the two groups I attended according to the leadership skill and personality of the leader. One group was largely dominated by the students, with senior participants largely listening. The other group's discussion was largely dominated by the senior participants. In the latter case, this project will more likely lead to a publication, but with less learned from the students. In the former case, the students will have learned immensely, but will likely suffer from little leadership from senior participants who know how to get projects done and maintain long-distance collaboration. This contrast is central to my reservations about this aspect of CIDER.

Do you have a clear understanding of your role and contribution to the project, at this point in time?

Answer Options	Response Percent	Response Count
Yes	94.1%	16
No	5.9%	1
	Total responses	17
	Skipped question	8

Please explain if you wish to.

Yup, yup, I have my homework.

My role ended up being somewhat marginal. We may be able to build in my ideas, we may not. Doesn't matter - the students' ideas are more important.

One group was dominated by older, well-established, male, vocal senior participants. The student leader is very deferential to these individuals. I had no voice in the discussions and I appear to no longer be part of this group despite contributing concretely to the efforts. In the second group, my role is clearer as an advisor for this group.

Were you able to make significant progress on your project while at CIDER II?

Answer Options	Response Percent	Response Count
Yes	94.1%	16
No	5.9%	1
	Total responses	17
	Skipped question	8

What do you think would help make this process smoother?

better wireless internet at KITP

One might consider a four-sentence abstract of possible finalists for project proposals---it could be that, in some instances, a good idea might be lurking, but might not have been well-enunciated.

The research talks in the afternoons often had the unfortunate side effect of breaking up the day when we were just starting to make progress. Maybe putting them at a different time, or on alternating days would have been useful.

Can't think of any specific suggestions!

The only way that I can think of to make this smoother would be to have pre-defined projects that the junior participants then have to choose from. Probably not ideal in terms of their ownership of the projects.

I think a rubric of successful CIDER projects for students to study would be a useful tool for helping them to figure out what will be successful in 2 weeks vs. what will not.

For me, fewer inquiries for help from the other research projects! But I was glad to help everybody. That is just as important as the particular group I was assigned to.

More time when junior and senior participants can be together.

My limit in making progress was time. Too many other things proved to be a distraction.

My major concern is that student groups have someone who can see the project to completion. I have sent students in the past (on stipend from my grants), they made great progress, came back to spend significant time in the following year to complete the project (on stipends & tuition from my grants), with no completed project. When I'm not a part of the work, it's difficult to advise the student so that the work can be completed -- very crucial for students going on the job market -- and to ensure that the publication process goes smoothly.

Given your other research commitments at your home institution, will you be able to continue working on this project?

Answer Options	Response Percent	Response Count
Yes	100.0%	17
No	0.0%	0
	Total responses	17
	Skipped question	8

Please explain if you wish to.

Enough progress was made at CIDER that I don't think a large commitment is needed---small commitments I can do!

It's always nice to have another thing to think about when you are stuck.

Yes, but only because I have a pending NSF proposal in the area of the project in which I participated

Not at a very high level, unless the project directly converges to my current research interests. But I am happy to provide further guidance and answer questions.

Not a lot of time, but some follow-up, as needed.

Hopefully, but it will not be easy.

At least I intend to!

The fact that I am in a group collaboration provides incentive to keep up with my part of the project and the components I need to deliver. This is very different from normal faculty-student relationships.

Please share your impressions on the *connections and network opportunities with graduate* students/postdocs/faculty. Please discuss the connections that you made at CIDER II, and those that you plan to follow up with in the future.

I made an important connection with a postdoc from another institution whom I don't think I would have had the opportunity to meet otherwise.

Yes, excellent opportunities to network and establish new relationships.

The dinners provide a great way for faculty to interact with grad students and post docs. I'm not sure how this can happen, but it would be good to find a way to better encourage interactions between students and faculty.... the rift between the two groups is still larger than I would like. I will think about how to improve this in future years.

The connections and networking are probably the most important part of CIDER. The shared lunches and dinners were great for scientific discussions. There are some great students and postdocs (and of course senior participants!) out there. I hope that I will be able to continue working with them.

Excellent networking and I will be working with members later on the research topic as well as others with some research Excellent, encouraged by the building.

There were lots of opportunities for informal discussion among faculty & students & postdocs. Lunches and regular dinners together helped promote this interaction.

I got to know a broader suite of students across different disciplines then I would normally interact with on a regular basis. And, I got to know a few people much better that I previously only knew by reputation (or perhaps by sight) only (including a person or two I'd coauthored papers with!)...

It is great to meet other researchers in the field, both within your subfield and outside of it.

will follow up connections with my group as well as one other group

As a senior participant I had the opportunity to make connections with other senior participants and junior ones. I was able to set up at least 4 or 5 definite collaborative projects, mostly outside the defined research groups and some within. It was fantastic opportunity for networking and starting new projects.

For senior, yet still untenured participants, the networking opportunities of CIDER are amazing. Getting a chance to work closely with leading researchers in related fields allows you to publicize your research, make connections, and make contact with potential tenure letter writers not possible in other conference settings. I've discussed 2 or 3 potential collaborations with other senior participants, plus managed to meet many of the future researchers in our fields, which is really irreplaceable.

Impressions about networking continued

As a lecturer, I had the opportunity to meet other lecturers that I had not met before. It was great and I have no doubt we will keep in touch in the future.

Getting to know students and postdocs in different fields is very valuable, I will see them again at meetings and follow their research. It was very useful as well to get to know other faculty and interact with them. I am hoping to stay in touch with a number of faculty, especially when overlapping questions come up that may evolve into joint projects.

There are plenty of opportunities for interaction among the graduate students/postdocs/faculty. I was able to initiate a new collaboration and gain a greater appreciation for some of the uncertainties in other disciplines. I have new contacts that I could pursue in the future

CIDER is unparalleled in this regard, in both that you can interact with potential postdocs, and top minds in their fields from geophysics and other disciplines. If anything, this program has me now corresponding with several folks that I typically would have only spoken with at conferences.

Great! I recruited and trained several new users of the software that I maintain ... this will directly result in collaborations, citations and co-authorships for me. I met a number of strong young researchers that I might consider for future appointments. I had a number of conversations that I've been meaning to have for years but never quite managed by e-mail or at short meetings ... live is better!

The connections and networks opportunities with graduate students / postdocs / faculty at CIDER II are superior to those at any other program.

I certainly got know personally faculty whose work I follow but with whom I haven't personally had not a lot of contact. Similarly, I got to meet advanced students, some of whom I may consider for postdoc opportunities.

For me, CIDER offers a great chance to check out our junior colleagues (people we may want to hire). I have also found it useful when I am asked to write tenure letters.

I have established a few collaborations, one with a project group, and one or two outside it, based on conversations at CIDER. One potentially will become an NSF proposal after I complete the first paper from this project, started 2 weeks ago and outlined on the plane during my return trip.

Did the connections you made in the CIDER II summer program help you in generating new ideas for research?

Answer Options	Response Percent	Response Count
Yes	95.7%	22
No	4.3%	1
	Total responses	23
	Skipped question	2

Please explain if you wish to.

I have several new ideas on the interaction of geochemistry, seismology, and geodynamics - won't go into detail.

I established some connections with a couple of geodynamicists this year and we are planning on working together in the near future.

Yes! I have two new ideas for papers based on data we've already collected:)

The exoplanets 'thread' gave a different perspective on the deep earth.

Oh, I had a couple ideas that might be worth following up on.

Yes. Some better understanding of chemical heterogeneity and also roll of grain boundaries in seismic attenuation

Not directly at this point, but I am hoping to further explore the codes that came with the Virtual Box. This was a very useful addition, and could broaden my research.

I have several new ideas for combining seismology and geodynamics to better constrain the internal structure of the Earth. As a preliminary step, I plan to use some of the tools from the tutorials.

Yes, I received a number of suggestions from dynamicists regarding how to go about modeling early Earth isotopic anomalies.

We'll see how things go, but I was encouraged to dig up and finish some things I had sitting around.

Two new projects began at this CIDER II which will continue beyond it.

This was a great platform to try some techniques that I don't usually do. This gives me a much better view of what is doable while developing research ideas,

Generation and focusing of new ideas.

Do you plan on pursuing new areas of research or going in some different directions in your research as a result of your participation in the CIDER II Summer Program?

Answer Options	Response Percent	Response Count
Yes	81.8%	18
No	18.2%	4
	Total responses	22
	Skipped auestion	3

Please explain if you wish to.

I connected with a couple of geodynamicists this year, in particular Allen Mcnamara. I've known about his work for some time, and the CIDER program gave us an opportunity to sit down and talk about future research plans.

Always unsure. There's a lot of different directions I have now, so it's really hard to say.

No new areas, but ideas from other disciplines helpful in my research

One small project related to the evolution of the orbit of Phobos' orbit should lead to publishable results in conjunction with thermal modeling on a relatively short timescale. This research is interesting, and should be published!

Possibly, it is still a bit too early to say how this will develop.

Probably not, at least not in obvious ways.

See #20.

I may get more involved in global thermal evolution modeling. In particular, I feel I have a better understanding of the thermodynamic information and processes in the deep interior of planets (including the Earth)

*I have new tools gained from the tutorials. I haven't come home with these in the past because of software/compatibility issues in the past. The virtual machine worked wonderfully, and I now have an explosion of new tools to consider.

FINAL REFLECTIONS

Would you recommend CIDER II to other graduate students and post-doctorates?

Answer Options	Response Percent	Response Count
Yes	100.0%	23
No	0.0%	0
	Total responses	23
	Skipped question	2

Please explain

I would have liked to have checked "it depends." I don't think many postdocs and early career faculty can afford to take the time away from their work to participate in the lecture/tutorial weeks. I think it is an amazing opportunity for graduate students however.

Absolutely - good way for them to jump start their research. I had previously had a grad student attend and that proved quite useful.

CIDER is a great opportunity to network with senior members of the field and to meet other young folks interested in studying the deep Earth. CIDER also provides a venue to approach the study of the deep Earth in a interdisciplinary fashion.

Absolutely. I participated as a postdoc in the first CIDER in 2004 and found that to be a worthwhile experience. This summer was even better.

Sure! It's a really good experience, and helps also build a cadre of solid earth-focused, but interdisciplinary graduate students/post-docs.

It is a great way to break out of research bubbles that you might find yourself in.

This is a great opportunity for junior participants to interact with a large number of researchers on a basic science level that just isn't possible in shorter form conferences.

It is a great experience that will greatly expand the focus of students research.

This is a fantastic opportunity not only to learn about research and generate new ideas, but to also build connections and network with faculty who will be future advisors, colleagues, and mentors.

Clearly. Great exposure to future collaborators, reviewers, and employers, as well as excellent, diverse training.

No better way to gain broad knowledge in deep earth research.

This is such a great opportunity for students to network and learn about different discipline and I will encourage all my students and postdocs to attend future CIDER!

I would do so only for students that I think are good and broad enough to benefit.

My primary reservation is on the tuition and stipend support for students who initial projects at CIDER, and authorship rights for their PIs. While the PIs don't have clear and direct involvement with the project, I've found myself investing time, knowledge - scientific, organization, and interpersonal-, and skills in ensuring completion.

Senior Participants ONLY: Would you recommend the CIDER II program to other colleagues?

Answer Options	Response Percent	Response Count
Yes	100.0%	23
No	0.0%	0
	Total responses	23
	Skipped question	2

Please explain

Again, it depends. I would be honest with a colleague and tell them that they cannot plan to get anything done during the lecture/tutorial section.

Absolutely. It proved a very enjoyable, horizon expanding experience.

Absolutely. CIDER is a great way to get "up to speed" regarding the latest developments in the study of the deep Earth. CIDER is also the perfect venue for developing interdisciplinary projects that have been on the "back burner" for a long time, but have never come to fruition owing to a lack of time at shorter conference venues.

It's fun and worth the time commitment if you can swing it.

Yes...it's a pleasant environment, scientifically fruitful, and there's enough spare time to revise papers, wrap-up proposals, answer e-mails, and all that kind of stuff that one has to do...

Would emphasize the possibility of exposure to experts in areas not available in home institutions

As pointed out in previous questions, the networking in a long form meeting like this is far superior to shorter conferences.

It is difficult to be at CIDER because the work keeps piling on from home, however it is a great opportunity to learn new things, meet new people, and work on new projects. The benefits outweigh the stress significantly and the emails will get answered eventually.

I always learn new and important things. I would certainly recommend the experience to others.

Great opportunity to meet new people and work more interactively with people you already know but normally have little time at meetings to talk with.

Absolutely the best way to get the pulse of the science in the Deep Earth disciplines, and interact with world class scientists. Not to mention pick up a few tools that can be useful in your own research.

A nice break from the grind, a good opportunity to talk to other top senior participants, a great opportunity to survey young talent, a chance to advertise your methods :-)

Fulfilling opportunity to educate the next generation, identify prospective postdocs, and influence the thinking of young scientists.

As senior scientists, we rarely have the opportunity to learn new skills. CIDER is almost like getting a little bit of continuing education, and we can really use that!

Please share your final thoughts about how you view the benefits and/or drawbacks of participating in the CIDER II 2014 Summer Program.

One thing not covered in the survey: I learned things and approaches, mainly outside my specialty, that will prove very useful in my undergraduate teaching. Several other senior participants mentioned the same thing. There is a strong feedback to undergraduate teaching.

The benefits I've discussed above. The drawback continues to center on the difficult of "carving out" 4 weeks of the summer to participate in the CIDER program. Many folks show up for 1 week and leave, and this lack of "group continuity" is a bit disappointing.

The only drawback that I see is that I wasn't able to participate longer and stay in the research group time...

Very good experience---valuable and engaging.

Great for learning new things, meeting other researchers, forming collaborations.

Interdisciplinary interactions are strong, but in spite of this the foci sometimes can still be quite narrow depending on composition of participants

All positive! fantastic opportunity and program. will come again.

The non-negligible cost of a program like this is the length of time investment required, which can be difficult for faculty members to find. Fortunately, the meeting's focus this year closely aligned with projects I'm funded to do, and so it was possible to continue the work I need to do in conjunction with the meeting. The benefits, though, are hard to overstate. I plan on being involved with future CIDER programs as frequently as feasible.

One drawback that I can think of is that the projects are geared towards generating publications. This necessarily impinges on creativity, as the focus is on generating quick results rather then exploring topics and directions that maybe interesting but may not lend themselves to a quick resolution (the thinking outside the box is constrained by the available time to generate a paper).

The benefits to participating in the CIDER II 2014 Summer Program are liable to be long term. The interactions and greater understanding of related disciplines will undoubtedly influence the direction of my research, but probably not in an abrupt way. I feel that I will be able to steer a more effective path than I might have done otherwise.

The only drawback is that the time commitment is large, but ultimately it's worth it.

Benefits: this program really anchors the US community of dynamic Earth researchers, allowing cross-institutional relationships that are otherwise hard to initiate and maintain. Drawbacks? None.

For me, I find I will benefit greatly from the breadths of colleagues and disciplines that I got to interact with at CIDER. Time commitment, especially with proposal and abstract deadlines in late july and early august makes it difficult to commit. It is also tough to keep tabs on what the lab does back in my home institution. Evidently, there are some tough personal choices.

I think the benefits are obvious -- working with new people and colleagues on good problems, in a setting conducive to research. The downside is leaving behind all the other things we need to get done -- it is difficult to keep up with things that continue at my home institution.

Please share any final comments and suggestions you have to help improve the CIDER II program.

A fully scheduled 9-5:30/6:00 day is too long / too much. Senior participants need at least some time to work. For those who need to pick up children at child care centers (all of which close at ~5:00 or 5:15), it is impossible to attend the events that start at 4:30. If senior participants are keen to give a research talk, then those could be interspersed in the morning, afternoon, or during other weeks of the program.

Mainly, just a bit (but not too much!) more structure in the unstructured part. This was an extremely positive experience for me.

This is a great program. I'm going to stay involved in the future!

Slightly shorter program please! 4 weeks. 5 weeks, max.

None, really.

Thanks!

Would make the afternoon sessions a bit less intense

I think it should be advertised more widely.

Define concrete expectations for each research group: a report of some sort, or material that can be expressed as a proposal.

Of those I went to, this was my favorite.

CIDER made it very easy for me to bring my family with me to Santa Barbara. I would be unable to attend otherwise: Extended travel is nearly impossible for many of us, particularly when our spouses do not have faculty positions, and the schedule & geographic flexibility that comes with that. We had the space we needed as a family, my kids were welcomed in group activities like BBQs, and the presence of other kids in Santa Ynez made it so it felt more like a vacation for them instead of daycare.

Please share your impressions regarding the *logistics* of the CIDER II Summer Program, including (a) location, (b) venue, (c) housing and food, and (d) the schedule.

The location, venue, housing and food were all good. I think the schedule during the tutorials is too full and too demanding. The lectures that get scheduled after the tutorials really push it over the edge. At the end of the week one finds oneself hopelessly behind on even basic maintenance of correspondence with colleagues, students etc... Or feeling guilty about having not attended the lectures. In addition, staff who come to CIDER with children have no way to attend these early evening lectures.

Everything was excellent.

Overall excellent. I'll limit my comments to a few very minor complaints. (1) A microwave and coffee-maker in the apt would have been very useful. The 2 drink ticket business in the first formal dinner struck me as niggardly and overly bureaucratic. Finally, it is quite difficult to get to Santa Barbara from the east coast on \$650 if you are not departing from a major East Coast hub. I could not find a fare, even to LAX, at that price even 5 weeks in advance.

All good.

The location, venue, housing and food were all great! UCSB and the surrounding area is gorgeous and the weather is near perfect. The schedule is too long and perhaps would have been better as a 4-5 week long endeavor: 2 weeks lectures/tutorials, 2 weeks group, 1 week unstructured (or not at all). But I'm glad that this happens during the summer when participation would be at its peak. Perhaps next time I will be able to bring my family!

perfect, well coordinated

Venue is excellent and perfectly suited to the task; it is pleasant, open, and allows for free exchange and interaction. Food at the dining hall is remarkably good: fresh. SB is a lovely location and program took advantage of beaches etc.

Excellent venue, housing was great, schedule intense but excellent.

Very well done. Santa Barbara/Goleta is very nice, and KITP is a near perfect hosting venue. Housing and food were both good... Schedule was also good.

a) Excellent b) Excellent c) The meal schedule was a bit rigid, but I realize that the have a lot of groups that they need to schedule d) Good

Location always wonderful; would be nice to have more housing options than Santa Ynez for senior people

For me all fantastic! Would have liked a lighter afternoon schedule (research talks at 4 pm after a full day of work were tough to concentrate for).

(a) The location in Santa Barbara at KITP was perfect. It's a good and accessible place to be in the summer, and has all the resources needed for the program. (b) KITP is a very good location with the available visiting scholar office space and multiple available meeting rooms. (c) The housing for senior participants with families at Santa Ynez worked well for my family and me. (d) The schedule was fine.

The logistics were well organized.

The location worked well, KITP was very well organized, it was easy to settle into the office environment, no complaints about housing and food. The one somewhat minor issue at KITP is that the wireless internet connection is of low quality. This is an issue for example with skype, it was almost impossible in a number of locations.

The location and venue are attractive. The facilities at KITP are great and the housing arrangements work very well. Lunches are covered during the lecture/tutorial, which leaves participants to make other arrangements for dinner. This is a good arrangement.

All of the above were great. UCSB is a great location any time of the year. The KITP venue is a well thought out venue for promoting both individual and group activities. Housing was very nice, particularly the fact that participants share a portion of the apartment complex and therefore (are forced to) see each other daily. I never complain about food. The only aspect of KITP that could be improved is that the office furniture is getting a bit run down in some offices.

- a) Excellent. I would not change a thing. b) Very good. The wireless internet at KITP needs to be upgraded. It was a problem during tutorials. c) Very good. The Santa Ynez apartments have a lot of ants and cockroaches. d) Excellent. I would not change this.
- a & b) KITP and UCSB were both excellent in that the campus was clean, easy to navigate, beautiful (on the beach of course!), and the staff at KITP were friendly and efficient. c) Santa Ynez apartments were okay, but a bit far from campus making it difficult to interact with the students after hours a making the senior folks a bit more isolated. This may be a +/- depending on the senior participant (especially those with families to attend to in the evenings), but it wasn't as good for me. The lunches were fine, with lots of selection. d) The schedule was well thought out and planned.

Impressions about logistics continued

a) UCSB and its environment in general are an outstanding location for a workshop like this. b) KITP is very well set-up to host a meeting structured like CIDER. Meeting rooms, office space, coffee room, etc. all good. Generally AV and tech support. Wireless network, however, overloaded easily by the demands of this group. KITP staff a little grumpy, perhaps. c) Santa Ynez apartment housing for families and faculty participants was pretty good -- nice to have other families around, easy to organize play and potlucks, etc. Apartments themselves pretty good, though dorm beds are not that comfortable. Biggest problem was noise -- between construction work, gardening, housekeeping, soccer games, parties, and airplanes taking off, it was pretty much constant. Food -- I only ate lunches with the group at De La Guerra and these were very good. Wide range of attractive, healthy choices. d) Excellent schedule. Busy, but not too busy.

The location at UCSB is ideal. The KITP venue is excellent with two major problems: 1. inadequate wireless access; 2. Filthy offices (spiderwebs, dirty furniture, torn chairs, etc.). The housing was adequate. The food in the dining halls was excellent. The catered meals lacked vegan options - even the salad had cheese in it. The schedule was at times exhausting, and the late afternoon research talks should be eliminated.

a) Santa Barbara is a great location, very agreable in the summer. Certainly adds to the interest of attending CIDER! b) KITP is great for these times. I wished there where more medium size rooms for the working group. For the lectures, it would be great if there was a blackboard or an easel on the side of the projection screen. c) Apartments very staifactory, especially with the CIDER-contributed cooking ware! Food options OK. The only regret is that the housings for junior and senior participants are so far apart that there is little opportunity to interact outside of the lecture time. d) Lecture schedule is very good. For the research time, I find the 4pm session is actually disturbing. it essentially puts an "end" to the day's research activities, removing the freedom to go on for an extra 1/2h or hour if in the middle of figuring out something. It may be better to schedule it right after or before lunch.

a) excellent, b) excellent -- office and meeting spaces are fantastic, c) excellent, d) intense. The schedule was difficult to keep up with. Lectures were OK, but I missed one tutorial and fell behind in a couple others. I like having lectures Saturday. I thought everything was superbly organized. In hindsight, the lectures could have been better coordinated (though a serious attempt and discussion happened before the program).

Excellent. The apartments make living easy and reduces the "endless conference" feel, replacing it with a sense of a science community. The pacing for the schedule is great, though we all seemed to get exhausted after a while. I think these are addressed as best as possible with the evening social activities.

###