



**Incorporated Research Institutions for Seismology**

**IRIS/SSA 2015 – 2017 Distinguished Lecture Series Evaluation**

**For  
IRIS**

**January 2018**

**By  
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## Executive Summary

- All of the venues rated their lectures as successful, describing them as containing relevant content, accessible to their audiences, presented clearly, received well, and engaging.
- 100% of the venues agreed or strongly agreed that the audience engaged with the speaker during and/or after the IRIS/SSA Distinguished Lecture.
- It is estimated that approximately 3400 people attended the 22 events either in person or virtually with an average at each event of 153.
- Most venues (82%) reported being interested in participating in the IRIS/SSA Distinguished Lecture Series again.
- Most venues described the Lecture Series as impactful and offered anecdotal evidence such as comments from attendees that it was as a great success. Suggestions included having some additional content ahead of time and having a “boiler plate” document to describe the series succinctly.
- All of the presenters (100%) felt that the audience was engaged with them.
- All of the presenters (100%) described their presentation and their event as a success saying that the audience was engaged and asked good questions, attendance was high, and interest from the media was good.
- Most of the speakers (75%) felt that this event impacted the public about the same as other events.
- Most presenters (88%) felt IRIS/SSA should schedule another event at the venue.
- Most speakers (63%) did not present a colloquium talk at a local university prior to or after their lecture.

## **I. Background**

IRIS (Incorporated Research Institutions for Seismology) and SSA (Seismological Society of America) offered an annual national public lecture series in seismology for the 17<sup>th</sup> year in 2017. The goal of the program is to increase the general public's awareness of recent earthquake science discoveries, and the relevance of seismology to understanding our planet and to benefit society. A list of past speakers and lecture abstracts is available on the Distinguished Lectureship web page [https://www.iris.edu/hq/programs/epo/distinguished\\_lectureship](https://www.iris.edu/hq/programs/epo/distinguished_lectureship).

### **Scope**

Each year, the two lectures were typically presented three to six times each to general public audiences at science museums, universities or other public venues with target audiences of 200 or more. Lectures averaged approximately 45 minutes in length, with a typical program lasting about one hour including time for audience questions. The general scope of the research presented had clear and acknowledged tie-ins to SSA and IRIS. Lecturers must reside in the US during the year they serve.

### **Support**

Venues were arranged by IRIS and SSA. IRIS Education and Public Outreach and SSA covered travel costs and assisted with scheduling, logistics, and other related expenses. Lecturers were honored by SSA and IRIS with an award and a \$1000 honorarium. The lectures were promoted by IRIS, SSA and the venues. IRIS and SSA offer to provide outreach materials for dissemination by the lecturer and venue.

### **Ownership and Attribution**

Lecture materials were made available to IRIS and SSA for open distribution to members and other interested parties through the IRIS Education and Outreach and/or SSA websites and elsewhere.

Lectures were prepared and presented in PowerPoint or a similar electronic medium. IRIS and/or SSA videotape some lectures subject to venue constraints.

This evaluation reports on lectures from 2015 to 2017. The data summarized provides evidence for the program objective, "Expand opportunities for the public to understand and appreciate seismology." The information collected was designed to provide evidence for how this objective was met by this activity. Data sources were a venue evaluation, a speaker evaluation, and follow up downloads of the lectures (shows availability and accessibility).

Distinguished lecturers for 2017 are shown below in the images from the flyer:

## 2017 Flyer



### **2018 IRIS/SSA Distinguished Lecture Series**

The Incorporated Research Institutions for Seismology (<https://www.iris.edu>) and the Seismological Society of America (<https://www.seismosoc.org>) are pleased to present two experienced speakers from the Earth Science research community for the 2018 IRIS/SSA Distinguished Lecture Series.

#### **Dr. Katie M. Keranen**

Assistant Professor  
Department of Earth and Atmospheric Sciences  
Cornell University  
Ithaca, New York

#### **Induced Earthquakes: Experimenting Unintentionally**

**AND**

#### **Dr. Frederik J. Simons**

Professor  
Department of Geosciences  
Princeton University  
Princeton, New Jersey

#### **Through the Ocean to the Mantle: Under the Seas with a Fleet of Floating Seismic Robots**

Our speakers are chosen each year for their interesting subject matter as well as their ability to convey scientific ideas to general public audiences. IRIS and SSA will cover the speaker's travel and lodging costs for large public venues and can also provide free seismology outreach materials. Please visit the IRIS website for more information about the 2018 series and the IRIS/SSA Distinguished Lectureship program:  
[https://www.iris.edu/hq/programs/education\\_and\\_outreach/distinguished\\_lectureship](https://www.iris.edu/hq/programs/education_and_outreach/distinguished_lectureship)

**If you are interested in scheduling a speaker, please contact:  
Perle Dorr. [lecture@iris.edu](mailto:lecture@iris.edu). 202-407-7004**

## 2018 IRIS/SSA Distinguished Lecture Series



### Dr. Katie M. Keranen

Assistant Professor  
Department of Earth and Atmospheric Sciences  
Cornell University  
Ithaca, New York

### Induced Earthquakes: Experimenting Unintentionally

#### LECTURE ABSTRACT

Induced earthquakes are triggered by humans, either by injecting fluid into the ground, extracting it, or impounding it behind dams. Induced earthquakes have occurred for a century, but in the past decade have become more prevalent in locations such as Oklahoma than natural earthquakes along most plate boundaries. These earthquakes create a new hazard and bring public attention, but they also create opportunities to study earthquake processes at atypical rates. In this presentation, Dr. Keranen discusses the sudden rise in induced seismicity, the relationship to oil and gas production including wastewater disposal and hydraulic fracturing, mitigation efforts, and new scientific advances made possible by this unintended experiment.

#### SPEAKER BIO

Katie Keranen is an assistant professor at Cornell University. Keranen wants to understand how the world works, and to that end, studies earthquakes, volcanoes, and plate motion to understand deformation of the earth at slow and rapid rates. Keranen has a BS from Michigan Technological University, a PhD from Stanford University, and completed postdoctoral research with the USGS Geological Survey. Before arriving at Cornell, Keranen was an assistant professor at the University of Oklahoma, and began studying induced seismicity when her house began shaking.

To schedule a speaker, please email: [lecture@iris.edu](mailto:lecture@iris.edu)

## 2018 IRIS/SSA Distinguished Lecture Series



### Dr. Frederik J. Simons

Professor  
Department of Geosciences,  
Princeton University  
Princeton, New Jersey

### Through the Ocean to the Mantle: Under the Seas with a Fleet of Floating Seismic Robots

#### LECTURE ABSTRACT

In the last few decades, seismologists have mapped the Earth's interior (crust, mantle, and core) in ever increasing detail. Natural earthquakes, the sources of energy used to probe the Earth's inside via seismic computerized tomography, occur mostly on tectonic plate boundaries. Seismometers, the receivers of earthquake wave motion, are located mostly on dry land. Such fundamentally inadequate 'source-receiver' coverage leaves large volumes inside the Earth entirely unexplored. Here be dragons! Placing seismic stations on the ocean bottom is among the solutions practiced successfully today. But there are exciting alternatives. Enter MERMAID: a fully autonomous marine instrument that travels deep below the ocean surface, recording seismic activity (and marine environmental data), and then reporting it by surfacing for satellite data transmission. This presentation will discuss a century of Earth imaging, a decade of instrument design and development, and the challenging – and wet – places that our scientific journey has taken us.

#### SPEAKER BIO

Frederik Simons is a geophysicist at Princeton University. Usually from the safety of his office, he analyzes data from digital global seismic networks to study the physical properties of the interior of the solid Earth, and from gravity satellite missions to weigh the ice sheets melting off its surface. To help increase seismic station coverage around the globe, he has been leaving his comfort zone by prototyping floating earthquake recorders in the oceans, and is now promoting the next big push in earth observation through the international initiative "EarthScope-Oceans". Simons joined the Princeton faculty in 2006. He is also an Associated Faculty member in the Program in Applied & Computational Mathematics and serves on the Executive Committee of the Program in Archaeology. Between 2010 and 2013, Simons was the Dusenbury University Preceptor of Geological & Geophysical Sciences. Previously, he was a Lecturer at University College London, a Princeton Council of Science & Technology Beck Fellow and a Department of Geosciences Hess Post-doctoral Fellow. Simons received a Ph.D. in Geophysics from M.I.T. and his M.Sc. in Geology from the KU Leuven in Belgium, of which he is a native.

To schedule a speaker, please email: [lecture@iris.edu](mailto:lecture@iris.edu)

## II.A. Summary of Findings from Host Survey (2015 – 2017)

- All of the venues described their lecture as a “success” describing them as containing relevant content, “successful,” accessible to their audiences, presented clearly, received well, engaging, and “...a huge success.”
- 91% of the lectures’ levels were described as being “about right” for their audiences with 9% being described as “too technical.”
- 100% of the venues agreed or strongly agreed that the audience engaged with the speaker during and/or after the IRIS/SSA Distinguished Lecture.
- 100% of the venues agreed or strongly agreed that the IRIS/SSA Distinguished Lecture adequately met the needs of their venue.
- It is estimated that approximately 3400 people attended the 22 events either in person or virtually with an average at each event of 153.
- Respondents reported that the IRIS/SSA Distinguished Lecture Series had about the same attendance (55%), had greater attendance (32%), or a lower attendance (14%) than other lectures at their venue.
- An admission fee was charged at 50% of the venues varying from a \$5 “suggested” donation to \$15.
- All of the venues (100%) utilized email and web postings to advertise their event with 91% using posters and/or flyers and 36% advertising in newsletters.
- The most successful PR resource in announcing the lecture was sample text and figures describing the content of the lecture (73%) with fewer suggesting that sample press releases (27%), sample audio (18%) and electronic templates (9%) as being less successful.
- In most cases (73%) no additional programming was developed to complement or extend the impact of the IRIS/SSA Distinguished Lecture Series.
- Most venues (82%) reported being interested in participating in the IRIS/SSA Distinguished Lecture Series again.
- Venues would like to be contacted about the lecture series at various times during the year including Jan-Mar (25%), Apr-Jun (10%), Jul-Sep (10%), Oct-Dec (15%), and at other times (30%).
- Most of the venues (56%) did not collect feedback from attendees following the presentation. Those that did are all willing to share their data.
- Most venues described the Lecture Series as impactful and offered anecdotal evidence such as comments from attendees that it was as a great success. Suggestions included having some additional content ahead of time and having a “boiler plate” document to describe the series succinctly.

Lecture venues 2015-217

| Event Date   | Institutional Host                     |
|--------------|--|
| Nov 30, 2017 | Phinney Center (via Town Hall Seattle) |
| Nov 20, 2017 | American Museum of Natural History     |
| Oct 24, 2017 | Southwestern Oregon CC/Hales Center    |
| Jul 27, 2017 | Oregon Museum of Science and Industry  |
| Jul 14, 2017 | NC Museum of Natural Sciences          |



|              |  |
|--------------|--|
| Jan 31, 2017 | Southwestern Oregon CC/Hales Center          |
| Nov 16, 2016 | Harvard Museum of Natural History            |
| Nov 14, 2016 | American Museum of Natural History           |
| Oct 14, 2016 | Cleveland Museum of Natural History          |
| Oct 10, 2016 | Southwestern Oregon CC/Hales Center          |
| Sep 1, 2016  | Venetian Theater                             |
| Jun 3, 2016  | Mission Pub and Theater                      |
| May 26, 2016 | Cosmosphere--Hutchinson, KS                  |
| Feb 3, 2016  | Rutgers University Geology Museum Open House |
| Nov 16, 2015 | American Museum of Natural History           |
| Nov 12, 2015 | Venetian, Hillsboro, Oregon                  |
| Oct 30, 2015 | Town Hall Seattle                            |
| Oct 26, 2015 | Southwestern Oregon CC                       |
| Oct 24, 2015 | Cleveland Museum of Natural History          |
| Sep 18, 2015 | Town Hall Seattle                            |
| Jul 27, 2015 | Fernbank Science Center                      |
| Jul 14, 2015 | Hollywood Theatre, Portland Oregon           |

### Detailed Findings

Would you describe the lecture as a success? Why or why not?

- *Yes, it was very successful. We had a sold-out crowd (between 170-180 audience members). Dr. Vidale was an engaging speaker, and the audience was attentive and interested.*
- *Yes- presentation was informative and interactive presentation. Audience was diverse in age and knowledge of content.*
- *Yes, very much so. The first talk in the lecture series sometimes is the lightest attended (haven't been able to get word out about all the talks coming up, and repeat...). We had a crowd of over 225 in the hall and 24 Livestream connects the night of the talk. Talk is now archived for future viewing.*
- *Yes. The audience was engaged, asked great questions and the speaker was great.*
- *Yes - I believe that Dr. McNutt's talk was a success. We had a good sized audience and the audience members had many great questions that filled the hour. In addition, Dr. McNutt interacted with several people after the program was over.*
- *Lecture was a huge success. First John made it to the coast despite numerous travel issues. More importantly, when combining attendance at the lecture hall with those watching on LiveStream that night the live audience was over 400. Generated good questions from the audience, and good response.*
- *Yes. The content was relevant. The speaker was clear and his delivery was energetic and engaging. We had 91 people at the event, which was a great number considering that it was a very rainy afternoon.*
- *Yes- Dr. Rubinstein presented in an accessible manner that was well received by the general public.*

- *Very successful. Justin did a great job explaining fracking and wastewater injection and the potential for causing earthquakes. The history and mechanics parts were very helpful for us here in Ohio.*
- *Yes-in hall attendance was 242 based on head count, additional 30 views on LiveStream feed evening of 10/7. A significant portion were students (both college and K-12). Several good questions asked during Q & A session-including several by students.*
- *Yes. Great turn out and engaged audience.*
- *Yes. Good turnout, speaker did very well, engaging question and answer section.*
- *Greatly successful. We had coverage from local and regional media and I feel Justin did a great job of sharing the information in a way that was clear to those in attendance and those who read the news stories.*
- *Yes, Caroline gave a very interesting talk to our audience and presented it at a level that everyone could follow. This event is for mostly non-science people.*
- *Yes. Thorne Lay presented in a particularly accessible manner. He was thorough in his explanations, and provided some interested animations that showcased the content well.*
- *Yes. Pretty good turn out with engaged audience and interesting question and answer session.*
- *Success. The lecture flowed well, great presentation, educational, good visuals, and happy patrons.*
- *Very successful. We had an in house audience of over 200 people, a significant (at least 51) community college student participation, a number of K-12 students, and our typical strong community presence. Good set of questions afterward. Additional questions in the lobby (and at dinner). Over 200 for the 1st talk is great-with the academic year there had not been a talk for over 5 months.*
- *Yes. Good solid attendance (n=245), interesting and engaging speaker.*
- *Absolutely! Mr. Lay was engaging and gave an interesting lecture on a very applicable topic to our region. He answered patron questions honestly and fully.*
- *Total success. Excellent speakers, interested audiences, and good questions after.*
- *Yes. There was a big article in the New Yorker about earthquakes that came out the same day. We had a high attendance of 325 and more than usual stayed for the Q&A portion and asked a lot of questions.*

Was the lecture (e.g., topic, content) presented at an appropriate level for the audience?

| Answer Options       | %   | #  |
|----------------------|-----|----|
| Too technical        | 9%  | 2  |
| About right          | 91% | 20 |
| Not technical enough | 0%  | 0  |

Please indicate your level of agreement with the following statement: The audience engaged with the speaker (e.g., asking questions, making comments) during and/or after the IRIS/SSA Distinguished Lecture.

| Answer Options | %   | #  |
|----------------|-----|----|
| Strongly agree | 86% | 19 |
| Agree          | 14% | 3  |
| Undecided      | 0%  | 0  |

|                   |    |   |
|-------------------|----|---|
| Disagree          | 0% | 0 |
| Strongly disagree | 0% | 0 |

Please indicate your level of agreement with the following statement: The IRIS/SSA Distinguished Lecture adequately met the needs of my venue.

| Answer Options    | %   | #  |
|-------------------|-----|----|
| Strongly agree    | 95% | 21 |
| Agree             | 5%  | 1  |
| Undecided         | 0%  | 0  |
| Disagree          | 0%  | 0  |
| Strongly disagree | 0%  | 0  |

How many people attended the IRIS/SSA Distinguished Lecture? How many seats are in the venue where the IRIS/SSA Lecture was held?

| Response Date | Attendance  | Seats Available                       |
|---------------|---|---------------------------------------|
| Nov 30, 2017  | 170-180   | 180                                   |
| Nov 20, 2017  | 61  | 140                                   |
| Oct 24, 2017  | 225   | 501                                   |
| Jul 27, 2017  | 150   | 200                                   |
| Jul 14, 2017  | 63  | 90-100                                |
| Jan 31, 2017  | 397 live, 23 livestream sites                                   | 501                                   |
| Nov 16, 2016  | 91  | 280                                   |
| Nov 14, 2016  | 68  | 140                                   |
| Oct 18, 2016  | 100   | 500                                   |
| Oct 10, 2016  | 242 live in hall/30 views on Livestream that evening (number=?) | 500, plus unlimited on Livestream.    |
| Sep 1, 2016   | 215   | 375                                   |
| Jun 3, 2016   | about 110   | about 150                             |
| May 26, 2016  | 55 (on a stormy day!)   | We set up seats for 100               |
| Feb 3, 2016   | 265   | 450                                   |
| Nov 16, 2015  | 97  | 140                                   |
| Nov 12, 2015  | N/A   | N/A                                   |
| Oct 30, 2015  | 40  | 180 max                               |
| Oct 26, 2015  | 228 in hall / 26 on the web                                     | 501                                   |
| Oct 24, 2015  | 245   | 450                                   |
| Sep 18, 2015  | 96  | ~160                                  |
| Jul 27, 2015  | Varied. Anywhere from 50 - 100                                  | 500 - but only 250 are "good" ones :) |
| Jul 14, 2015  | About 325   | 384                                   |

How does the attendance for the IRIS/SSA Distinguished Lecture Series compare to other lectures at your venue?

| Answer Options | %   | #  |
|----------------|-----|----|
| More           | 32% | 7  |
| About the same | 55% | 12 |
| Fewer          | 14% | 3  |

Was an admission fee charged for the IRIS/SSA Distinguished Lecture?

| Answer Options                | %   | #  |
|-------------------------------|-----|----|
| No                            | 50% | 11 |
| Yes (please tell us how much) | 50% | 11 |

Yes described:

- \$5 (3)
- \$15 (\$13.50 Students, Seniors). Free for Members with RSVP (3)
- Suggested \$5 (4)
- Varied depending on membership, package. \$9-12

Please describe any local positive or negative impacts that may have affected attendance at the IRIS/SSA Distinguished Lecture (weather, competing events, etc.). If there weren't any, please note as such.

- *The weather was cool, though dry, so I believe this encouraged several people to come and wait in the standby line since we sold out of tickets in our presale. I believe we had 34 walk ups (standby) that we were able to get in. On the other hand, this also means we had some attrition from our presale.*
- *Weather-two days of most significant rain on coast in months; the first Oktoberfest celebration at a local venue-600 tickets presale.*
- *The lecture was during an event that had other scheduled demos and activities although, nothing was scheduled at the exact same time as his lecture.*
- *The weather was extremely hot yesterday. People may have avoided coming out after work because of that.*
- *There are always competing events-one key was several local HS basketball games. Travel issues led to an initial cancellation on two large email lists. This was repealed 20-25 minutes later, but there were at least one or two groups that thought the talk remained cancelled (several local media outlets continued to announce late afternoon/evening that the talk was on). Positive-linked to Cascadia Anniversary, good weather.*
- *The weather was awful and a gas line broke very close to the venue which made the traffic terrible in the afternoon. Despite all of this we had a good crowd.*
- *Following Election Day, which may have caused a decrease in attendance.*
- *Lots of competing events from Cleveland Indians and Lake Erie Monster games.*
- *Multiple concurrent events: wine walk, college volleyball match on campus, 2 high school football games...*

- *People continued to share how much they learned. The Cosmosphere was fortunate to have people come to the lecture from as far away as Ponca City, OK, who had never been to our facility before. All responses were tremendously positive.*
- *There was a snowstorm the weekend before but the weather on the day was nice so we had a very good turnout.*
- *Due to the fact that the lecture is Free to Members we often see about 1/3 drop-off rate. It was a bit rainy outside, which always hinders attendance as well.*
- *None that I can think of. We had a presale of only 14 but more than doubled that.*
- *Hunting/fishing season; full day resource conference the day before; illness has been going around the last few weeks.*
- *When there's good weather in Seattle, we tend to see a dip in attendance. As this was one of the last nice days of the year, I'm sure it had an effect on attendance.*
- *The speakers have been part of our Astronomy Day celebrations, and have been the only event scheduled in their time slot.*

Please indicate any methods used to advertise the IRIS/SSA Distinguished Lecture (check all methods used).

| Answer Options         | %    | #  |
|------------------------|------|----|
| Flyers/posters         | 91%  | 20 |
| Email                  | 100% | 22 |
| Web posting            | 100% | 22 |
| Letter mailing         | 5%   | 1  |
| Newsletter             | 36%  | 8  |
| Newspaper              | 23%  | 5  |
| Radio                  | 18%  | 4  |
| TV                     | 18%  | 4  |
| None                   | 0%   | 0  |
| Other (please specify) | 27%  | 6  |

Other specified:

- *This event was promoted at other Town Hall events prior to it in our introductions.*
- *College class schedule (10,000 plus household distribution)*
- *Social media - Facebook, Twitter*
- *Facebook, twitter, Instagram*
- *Town Hall calendar*

Which of the following PR resources would be most useful to your efforts to announce the lecture if they were made available to you at no charge.

| Answer Options  | %   | #  |
|---|-----|----|
| Electronic templates for lecture-specific flyers  | 9%  | 2  |
| Sample text and figures describing the content of the lecture optimized for use in listservs, web postings, newsletters, etc. | 73% | 16 |
| Sample press release for distribution to newspapers, TV or radio  | 27% | 6  |
| Sample audio describing the lecture for a Podcast advertisement   | 18% | 4  |
| Other (please specify)  |     | 5  |

Other specified:

- *Good quality image of speaker and "jazzy" illustration(s)/images for publicity.*
- *Better photos. The ones submitted were very technical. It is good to have images that can appeal to a diverse group of people, not just scientists.*
- *Have done pretty well with images and content provided.*
- *I am a host, not an event planner so I cannot speak to this.*
- *Pretty dialed in for promotion*

Briefly describe any Earth science or seismology-related displays or programs that are currently part of the venue (e.g., exhibits at a museum or seismology-related courses and majors at a university). If there aren't any, please note as such.

- <https://www.amnh.org/our-research/richard-gilder-graduate-school> I and <https://www.amnh.org/our-research/physical-sciences/earth-and-planetary-sciences>
- *None currently. We are in final stages of Health and Science building capital campaign- so new building may have potential for seismic display on campus but not at lecture hall. I have been collecting donations in a "tip jar" for several years-donations at this talk went towards the "million- dollar match" for this campaign raising \$250 for a chair sponsorship for "Geology Lecture Series" that will be matched. Also generated further interest in additional donation support that should be forthcoming.*
- *Our Earth Science Hall and lab is always hosting programming related to seismology.*
- *Our Museum has exhibits about NC geology - and these include descriptions of plate tectonics etc.*
- *I currently have two courses at the community college that are discussing earthquakes and related activity this term (G 202 Physical Geology II - 42 students) and (G 246 D an online geohazards class - 22 students). To date I have 15 students that I know participated in the talk as part of the live audience. Online students have an opportunity to view Livestream-haven't received any write ups from this potential group.*
- *We have a large display of minerals/meteorites; a gallery that focuses on Climate Change, and a Department of Earth and Planetary Sciences. We also have two professors who study seismology.*
- <http://www.amnh.org/calendar/seismodome-sights-and-sounds-of-earthquakes-and-global-seismology>
- *Seismic Observatory available for tours. A tour was conducted as part of the program.*
- *For some of the talks in my series, I invite local groups, including our two registered Tribes to be present with displays in the lobby if the topic relates. This was not done for this talk.*
- *None at venue, but the host institution has an entire earth science hall with several exhibits, labs and classes related to seismology.*
- *None at the venue, but tons at the museum that sponsored the event including classes and demos related to seismology and several permanent exhibits about current global seismic activity, how seismographs work, local seismic activity, and a science on a sphere display on seismic activity.*
- *We have had an IRIS lecturer for the past five years and the entire museum has earth science and natural history based exhibits (geology museum). No seismology-based exhibits.*



- *Hall of Planet Earth exhibit. <http://www.amnh.org/exhibitions/permanent-exhibitions/rose-center-for-earth-and-space/David-S.-and-Ruth-L.-Gottesman-Hall-of-Planet-Earth/promos/hall-of-planet-earth-for-educators>*
- *OMSI has several earth science programs on site and in special events but the venue for the lecture was offsite and has no regular earth science displays or programming.*
- *I don't know any specifics but we have a 'Science Now' lecture series that is put on by the local University. I am not sure how many are seismology-related*
- *There are courses (geohazards-winter term); Physical Geol I (now)-but we haven't touched on topics yet this term. about 1/4 of my class attended.*
- *Seismology exhibit, seismograph and participation on Ohio Seismic Network.*
- *None currently (4)*

Was any additional programming developed to complement or extend the impact of the IRIS/SSA Distinguished Lecture (e.g., related talks by others, temporary exhibits, student workshop, teacher professional development workshops, additional talks by lecturer)?

| Answer Options        | %   | #  |
|-----------------------|-----|----|
| No                    | 73% | 16 |
| Yes (please describe) | 27% | 6  |

Yes described:

- *Minimally-we did have a dessert/conversation gathering at our house following the talk where local K-12 educators were invited along with other science department faculty (I'm a solo department in Geology).*
- *Our event was themed around volcanoes and our exhibition Pompeii. There were multiple speakers and educational vendors, plus science demos and explosions that all complemented the lecture.*
- *The impact of this science cafe was extended by having the program live-streamed and recorded for later viewing. It is now available for anyone to watch who is interested in the topic*
- *With John Vidale giving the 12th Annual Cascadia Anniversary lecture (talk in proximity to the last great Cascadia quake on 1.26/1700 at 9:00 pm) we extended the weekend with a showing of San Andreas the movie as part of a Science on Screen grant that the executive director of our local historic Egyptian Theatre was awarded-it funds 7 movies for local science related groups (including the geology lecture series). SWOCC Geology faculty Ron Metzger (also coordinator of the college lecture series) gave a 20 minute talk about the science associated with the movie, relating to Cascadia, etc. prior to the movie. After the movie there was about a 30-minute Q & A about general questions associated with Cascadia and a couple questions about the movie.*
- *The speaker gave a talk to the Department of Earth and Planetary Sciences.*
- *indirectly-the geo lecture series I host at SWOCC is an academic year-long series (attempt for 6 talks, 2 each academic quarter). At least one quake talk per year in January to coincide with Cascadia Anniversary of 1700 event.*

Is your institution interested in participating in the IRIS/SSA Distinguished Lecture Series again next year?

| Answer Options              | %   | #  |
|-----------------------------|-----|----|
| Yes                         | 82% | 18 |
| No (please tell us why not) | 18% | 4  |

No described:

- *We try to present different topics to audiences, so it may be challenging to present another lecture on seismology. But we could definitely look into collaborating again in 2018.*
- *The IRIS/SSA series has been incredibly helpful over the years in helping maintain a strong geology lecture series at SWOCC. Living on the coast in a rural community, Cascadia and earthquakes are always a topic of interest and IRIS/SSA distinguished speaker series provides cutting edge researchers that discuss varied seismological topics which is a benefit. Covering travel costs significantly helps the fiscal aspects of putting on the series at a small rural community college.*
- *Again, I don't plan events, but based on my experience, I would recommend participation next year.*
- *Not sure, depends on speaker/topic and how it fits into our Explorer lecture series.*

When would you like to be contacted with information about scheduling another IRIS/SSA Distinguished Lecture?

| Answer Options         | %   | # |
|------------------------|-----|---|
| January-March          | 25% | 5 |
| April-June             | 10% | 2 |
| July-September         | 10% | 2 |
| October-December       | 15% | 3 |
| Other (please specify) | 30% | 6 |

Other specified

- *We've started conversations for next December*
- *Any time of year*
- *Already started for fall 2017*
- *Not sure. You would have to contact Town Hall event planner specifically*
- *Earlier the better-I have had trouble scheduling May 2016, but will soon start on 2016-17 series*
- *Please contact our programming department anytime.*

Did you collect feedback from attendees following the presentation?

| Answer Options | %   | #  |
|----------------|-----|----|
| Yes            | 44% | 8  |
| No             | 56% | 10 |



Are you willing to share the feedback you received with IRIS? Comments can be consolidated, summarized, or individual remarks without any identifying information.

| Answer Options  | %    | # |
|---|------|---|
| Yes - Please send attendee feedback to Perle Dorr at dorr@iris.edu. | 100% | 8 |
| No  | 0%   | 0 |

Please describe any suggestions you have to improve the IRIS/SSA Distinguished Lecture Series or any additional comments you feel are relevant.

- *I haven't attempted to collect feedback other than anecdotal. Many attendees appreciated the directness and approachable Steve was in the content of his talk. There were several people (a dozen or so) that had questions following the general audience questions. They all stayed to hear the questions and answers instead of leaving once their question was answered. The IRIS/SSA connection has been extremely beneficial to the Geology Lecture Series success in our rural community. It helps to keep costs down and also provides earthquake related talks which are always a significant draw in our region on the "Cascadia Coast."*
- *You guys did a great job and I wouldn't change anything.*
- *Steve did a great job and we really enjoyed having him in Raleigh. I guess if we have future speakers, one thing I might change is to be able to talk to them a bit before they actually make the trip to NC.*
- *Feedback that I receive is usually anecdotal. I have already received 8 to 10 positive comments about the talk (in addition to some of the direct comments at a small dessert reception at our house following). As always, I am very appreciative of the support that IRIS/SSA has provided over the years. The speakers have been not only talented but also wonderful guests-all of which we would gladly open our home to if they were travelling on the south coast. This may seem out of place, but in the modern world it is nice to have people that are at the top of their field, but also are good, positive individuals as well. As a rural institution, the potential to have an organization subsidize travel is crucial to the ability to keep the lecture series fiscally stable. Thank you for continued support.*
- *It was wonderful to work with Perle Dorr to present Justin Rubinstein at Harvard. We were very pleased with his talk, and I think our audiences walked away with a much better understanding of human-induced earthquakes. We are very grateful to IRIS and SSA for co-sponsoring this presentation at Harvard University.*
- *Everything went very well.*
- *I do need to have slightly more content (I usually do and even have in the past)-regarding lodging-as most speakers over the years stay with me-even if they did not, I would be able to help coordinate lodging with a rural eye to where to stay. Food-allergies, likes or dislikes, etc. Also, trying to arrange interview with Jefferson Public Radio program "Jefferson Exchange". That said, I've always had a good experience over the years, greatest difficulty is travel to rural location (Caroline nearly missed connection in PDX due to delay here); potential for bad weather in SFO-OTH flights (both ends), etc.*
- *It would be great to have a boiler plate to succinctly describe the Lecture Series and the organization.*
- *Dr. Wiens was great!*

- *At this point I have been pleased over the years with the quality of speakers and their ability to deliver a general audience talk. I can't think of anything at the moment that I would improve.*
- *It's working beautifully as it is. Thanks!*

## II.B. Speaker Evaluation Summary 2015-2017

In addition to the venues hosting the lectures, the presenters were also asked to complete a post event survey about their experience.

### Summary of Speaker Survey Findings

- A total of six speakers completed the Distinguished Lecture Series speaker evaluation (two from each year).
- All (100%) reported having the venue address and a name and contact number prior to arriving at the venue. 88% (7/8) reported having the venue's suggested arrival time.
- All were met upon arrival at the venue (100%).
- Some speakers reported the room being 50% full (38%) with 25% reporting the room being 75% full and 13% reporting the room being 100% full.
- Nearly all (88%) of the speakers felt they were properly introduced prior to starting their presentation.
- All of the presenters (100%) felt that the audience was engaged with them.
- All of the presenters (100%) described their presentation and the event as a success saying that the audience was engaged and asked good questions, attendance was high, and media interest was good.
- Most of the speakers (75%) felt that this event impacted the public about the same as other events.
- The speakers felt the venues were the appropriate temperature (100%), had good acoustics (100%) lighting (88%), were overall good (88%), had appropriate microphones (75%), audio (75%), and projector/screens (63%).
- To make the event better, the presenters suggested ensuring the sound was functional and connected beforehand, using an appropriately sized room, better projectors and microphones, and better planning for the event.
- Most presenters (88%) felt IRIS/SSA should schedule another event at their venue.
- Most speakers (63%) did not present a colloquium talk at a local university prior to/after their lecture.

### Distinguished Lecture Speaker

| Speakers               | # Lectures |
|------------------------|------------|
| 2015 Thorne Lay        | 5          |
| 2015 Doug Wiens        | 4          |
| 2016 Caroline Beghein  | 3          |
| 2016 Justin Rubinstein | 5          |
| 2017 Stephen McNutt    | 2          |
| 2017 John Vidale       | 5          |

Prior to arriving at the venue for your presentation, did you have:

|                                  | 2015 |    | 2016 |    | 2017 |    |
|----------------------------------|------|----|------|----|------|----|
|                                  | Yes  | No | Yes  | No | Yes  | No |
| The venue address?               | 9    | 0  | 8    | 0  | 7    | 0  |
| A venue contact name and number? | 9    | 0  | 8    | 0  | 7    | 0  |
| Venue's suggested arrival time?  | 9    | 0  | 7    | 1  | 7    | 0  |

Did a venue staff member meet you upon your arrival at the venue?

|     | 2015 |   | 2016 |   | 2017 |   |
|-----|------|---|------|---|------|---|
|     | %    | # | %    | # | %    | # |
| Yes | 100% | 9 | 100% | 8 | 100% | 7 |
| No  | 0    | 0 | 0    | 0 | 0    | 0 |

What is your estimate of attendance (how full was the room)?

|                        | 2015 |   | 2016 |   | 2017 |   |
|------------------------|------|---|------|---|------|---|
|                        | %    | # | %    | # | %    | # |
| 25%                    | 0    | 0 | 0    | 0 |      |   |
| 50%                    | 22%  | 2 | 38%  | 3 |      |   |
| 75%                    | 11%  | 1 | 25%  | 2 | 43%  | 3 |
| 100%                   | 22%  | 2 | 13%  | 1 | 14%  | 1 |
| Other (please specify) | 44%  | 4 | 25%  | 2 | 43%  | 3 |

Other explained

2015

- *About 35%? Maybe about 60 people.*
- *60% of a large lecture hall (maybe 225 people?)*
- *Maybe 100/140 seats*
- *Maybe 40% About 50 people.*

2016

- *Big room. Probably holds 500*
- *85%*

2017

- *225 people plus 24 people online (webcast)*
- *85%*
- *About 450 people, maybe 2/3rds full.*

Did someone from the venue properly introduce you prior to the start of your presentation?

|                     | 2015 |   | 2016 |   | 2017 |   |
|---------------------|------|---|------|---|------|---|
|                     | %    | # | %    | # | %    | # |
| Yes                 | 100% | 9 | 88%  | 7 | 71%  | 5 |
| No (please explain) | 0    | 0 | 13%  | 1 | 29%  | 2 |

No explained:

2015: NA

2016

- I am pretty sure I was introduced by my first and last name but there was no background given regarding where I work and what position I have, which would have been nice. I plunged into my presentation right away and only realized this later. Had I been prepared for that I would have started by telling the audience I am a professor of seismology at UCLA. Not a big deal overall, just something that could have been done differently.*

2017

- The host said "We're informal, speakers introduce themselves", which worked fine.*
- She said "We're informal, speakers introduce themselves", which worked fine.*

Was the audience engaged with you? (e.g., asking questions, making comments) during and/or after your lecture.

| Answer Options                            | %   | # | %    | # | %   | # |
|---|-----|---|------|---|-----|---|
| Yes                                       | 89% | 8 | 100% | 8 | 86% | 6 |
| No (please describe why not, if possible) | 11% | 1 | 0%   | 0 | 14% | 1 |

No described

2015: *The talk went about 60 minutes, and there was 30 minutes of questions, with perhaps 70 people all the way to the end.*

2016: NA

2017: *Lots of questions during talk, most quite appropriate.*

Would you describe the lecture as a success? Why or why not?

2015

- I'd say a partial success. The event was part of an all-day family science fair, and there were many young children (maybe 6-8 years old) who were just dropping in on the lecture as part of a schedule of events. When I realized this I quickly lowered the level of the lecture and shortened it a bit, but the age range of the audience, extending from young children to local university students and well-educated adults, was hard to overcome. Still most people seemed interested and there were good questions at the end.*
- I thought it was very successful. The audience seems quite large for such a rural location. There were quite a few good questions - not as sophisticated as Seattle, but reasonable general public questions. I felt like I had connected with a group of the community who are interested in science but do not have as many opportunities as those in urban areas.*
- I think the lecture was a success - there was a modest audience, people were interested and asked good questions.*
- I felt that it was pretty well received. Only a few people left early and lots of questions after, both in question slot and individually*
- The audience was small but engaged, clearly the most knowledgeable audience of all my venues. Most people had some prior background about Antarctica. If the goal was to reach well-educated people interested in polar work with message that seismology is an important component of that I believe I was successful. The only down side was the small size of the audience.*

- *It went well overall. Maybe 250 in attendance in a room that could seat about 500. Almost all stayed through the full talk. I had lots of questions, which would have gone on longer than 30 minutes after, but we had to leave for dinner.*
- *There were about 130 people, so all seats in the lecture room were taken. I spoke for 47 minutes and that was the target, so I finished on time. The audience included 27 UC undergraduate interns (working at the State Capital for the quarter) and about 100 general public, most of whom were from the Capital offices, including 8 people from the California Earthquake Authority (government insurance for earthquakes), several from the USGS and CDMG (California Division of Mines and Geology), and staffers and political people from multiple California agencies.*
- *I think so; the audience was interested in Cascadia hazard, and my talk addressed this from a global perspective.*
- *It was a very good audience and the lecture went well, although I stumbled a bit on starting some of the animations. They began with 15-minute trivia, and that was fine, then I spoke for about 60 minutes, and followed that with 45 minutes of questions from the floor and 30 minutes of chatting afterward. I will slightly reduce some technical content for next talk to shorten to 55 minutes.*

2016

- *Yes. Good questions and engaged audience.*
- *Yes. Good crowd and good questions*
- *Yes. Good questions afterwards*
- *Yes, Several questions and positive comments from attendees afterwards*
- *Yes, lots of people attended and there were lots of questions during and after the question and answer session.*
- *Yes. Engaged audience with good questions.*
- *Yes. I think the audience was engaged and asked good questions. The crowd was a bit thin (50), but apparently nobody leaves their house in Hutchinson if it's rainy. There was also significant media interest.*
- *Yes, lots of people attended and I got lots of questions during the question session and afterwards (people came to talk to me personally)*

2017

- *Yes, I went a little long, but people stayed with questions and discussion until we had to leave so they could close down the venue.*
- *There were constant questions, and most people stayed until the end of the question and answer period at the end.*
- *yes - success - good questions and feedback. I should have shown a few more photos of volcanoes erupting (I took them out of a previous version to reduce the duration)*
- *Yes, they paid attention, didn't leave, and asked lots of appropriate (and some hard) questions during the talk.*
- *Yes. Rather chaotic, but it seems to be the nature of the event, with beer, museum exhibits, a Guinness-record effort play volcano. Many activities, big crowd, only some of whom came to this particular lecture.*
- *Yes - good feedback, good questions, engaged audience.*
- *Yes, that is what the host said, and after talking, many in the audience expressed appreciation.*

How would you rate the overall public impact of this lecture compared to other activities you have participated in that were intended for general public audiences, including prior distinguished lectures for IRIS/SSA or other organizations?

| Answer Options   | 2015 |   | 2016 |   | 2017 |   |
|--|------|---|------|---|------|---|
|  | %    | # | %    | # | %    | # |
| This event had greater impact                                  | 11%  | 1 | 13%  | 1 | 57%  | 4 |
| This event had about the same amount of impact as other events | 67%  | 6 | 75%  | 6 | 43%  | 3 |
| This event had less impact                                     | 11%  | 1 | 0%   | 0 | 0    | 0 |
| I don't have other events to compare this one to               | 0    | 0 | 13%  | 1 | 0    | 0 |

Please rate the venue in meeting your presentation needs:

| Answer Options       | 2015                    | 2016                    | 2017                    |
|----------------------|-------------------------|-------------------------|-------------------------|
|                      | % "Excellent" Responses | % "Excellent" Responses | % "Excellent" Responses |
| Lecture Room Overall | 67%                     | 88%                     | 57%                     |
| Microphone           | 89%                     | 75%                     | 100%                    |
| Audio                | 67%                     | 75%                     | 86%                     |
| Projector/Screen     | 89%                     | 63%                     | 43%                     |
| Room Acoustics       | 89%                     | 100%                    | 71%                     |
| Room Lighting        | 89%                     | 88%                     | 57%                     |
| Room Temperature     | 78%                     | 100%                    | 57%                     |

What would make returning to this venue a better experience?

2015

- I lectured in a planetarium dome, which has advantages and disadvantages. Main problem was that there were three separate identical images projected, and people were looking at all three depending on where they were sitting, but I could only use the pointer on one.*
- The only thing that could make it better would be an easier way to get there! Ron and Kathy are great hosts and I recommend that future speakers stay at their house (virtually a B&B) as I did. It was really nice to get a tour of the area and a better understanding of the community from Ron.*
- One problem was that the lecture room was being used for a play on other evenings, and there were two chandeliers from the play set hanging right in the middle of the screen where I projected the slides. This was very distracting to me and the audience. I do think the organizers tried to remove these but were asked not to remove them (or could not remove them?). From what I hear, the downtown Portland venue is better.*
- It was very good; nothing bothered me.*
- Arrival was a bit confusing as I had to search out the right place - once I found the coordinator it was great. Other than that - a larger audience...*
- It was fine, and the hosting was great. Had lunch chat with staff, toured museum, nice pre-talk reception, nice dinner afterward. Had extra time in morning which I used to visit adjacent Art Museum.*

- *It was a good venue and very full crowd. Lunch was served, so that brought folks in from 12-1. I spoke from 12:10-1:00, and had 30 minutes more of questions as people trickled away.*
- *It is a great venue for a public talk; old, restored movie theater with comfortable seats, serving popcorn, pizza, beer, etc. in concession stand. Very enthusiastic audience of young and older ages.*

2016

- *Sound didn't get hooked up correctly to my computer, that was probably due to my extremely late arrival (traffic).*
- *The only downside to the room is its size. I think they rarely fill it.*
- *Better projector. The slides looked like they were of poor resolution due to their projector. Also, I had to hold a large microphone in my hand, which made it more difficult to make the hand gestures I often do while I am explaining something. A clip-on microphone would be better*
- *I don't think the venue has done a lot of lectures like this in the past, so the plan on where to have my lecture bounced around a few times in the days before my talk. They didn't realize that I would need a projector. The room we wound up in was good, the only difficulty was that I was standing right under the screen, so it was difficult to use a pointer -- which I didn't have till near the end of the lecture.*

2017

- *The room was sort of long and narrow, actually their usual room is being renovated for the next month or so.*
- *If I didn't have the flu at on the day I was speaking.*
- *There was no laser pointer; instead there was a special stylus to write on the computer screen (needed so web participants could see). A few issues with this (it did not write if a finger was accidentally touching the screen).*
- *If my wife had allowed me to get there half an hour sooner and hadn't taken me to a frazzling restaurant just beforehand, and if they'd told me beforehand that I could park at the loading dock rather than first cruise hopelessly looking for legitimate spot. Also if they hadn't told me there was an HDMI connector when there wasn't (room change). It all worked in the end, however.*
- *If my wife had allowed me to arrive a half hour earlier, if they hadn't told me there would be an HDMI connector when there wasn't (room change). But it all worked, and they tossed in a tour of the Pompeii exhibit and a beer.*
- *All slides had to be modified to meet their unique requirements of at lest 42 pt font. Big pain.*
- *If the airlines would actually fly the promised routes.*

Should we try to schedule another IRIS/SSA lecturer at this venue?

|     | 2015 | 2016 | 2017 |
|-----|------|------|------|
| Yes | 67%  | 88%  | 87%  |
| No  | 33%  | 12%  | 13%  |



No explained:

2015

- *I would say "maybe". I think the venue has a lot of potential, but I'm not sure the activity or time period I was scheduled in, during the Saturday afternoon of a family visit day, was optimal.*
- *I suggest continuing with OMSI but trying to get the downtown venue.*
- *Yes, but this was not an official IRIS/SSA talk; I was invited because I am a UC faculty member and they prefer that, although they did have someone from Stanford talk apparently. In the future IRIS/SSA lecturers from UC could be coordinated with the UC Center lecture planning. They have 1 lecture each week. Most are dealing with policy related topics; they mentioned my talk as one of a group on natural disasters (drought, fires, earthquakes).*

2016

- *Maybe? It's a very cool museum, but Hutchinson is a pretty small town (~1 hour from Wichita), so I'm not sure it would draw many people that weren't talking on such a locally relevant issue.*

2017: NA

Did you present a colloquium talk at a local university prior to/after your Distinguished Lecture or participate in another seismology-related event?

|     | 2015 | 2016 | 2017 |
|-----|------|------|------|
| Yes | 22%  | 38%  | 57%  |
| No  | 78%  | 63%  | 43%  |

Yes described

2015

- *I gave a technical talk at LDEO on Friday in their main colloquium series.*
- *Presented a talk at the University of Washington - this was a very useful aspect of my visit, in my opinion*
- *I gave a technical talk at Dept. Earth and Space Sciences, Univ. Washington. It was very different from my general public talk.*

2016

- *I visited both MIT and Harvard and gave a talk at Harvard. I set this up on my own.*
- *I visited Lamont Doherty. I contacted them to set up the visit*
- *I visited CVO - USGS office*

2017

- *Dropped in at the UW for a fair amount of discussion.*
- *Not a seminar, but I did visit Lamont and talk with a lot of people and sit in on a class.*
- *I met with Jonathan Lees of UNC*
- *I was scheduled to talk about being a scientist at a local school earlier in the day, but flight failures obviated that appointment.*



Please describe any assistance from IRIS staff that you would have found helpful prior to/during/after your presentation at this venue (e.g., travel arrangements).

2015

- *It was OK. More details on the type of activity and the composition of the audience would have been really useful. It would have been nice to have some contact with Georgia Tech or other local universities.*
- *Everything was fine.*
- *Everything was OK.*
- *Received help on initial contacts and follow-through. It went well.*
- *Initially there was not much interaction with Patrick McQuillan. It would have been nice to get some background on these venues before scheduling. Recent support by Perle has been very good, answering questions, etc.*
- *It was a great place to go as a speaker. Lots to see and do in vicinity, and very nice folks at the Museum.*
- *N/A. Not a IRIS sponsored event, but the talk was the same (shortened by 15 minutes) that I have given under the IRIS/SSA lecture series.*
- *The help I received was perfect.*
- *I made my own travel; which was fine. Was met at the airport by Bob Butler and had dinner before the talk, with him transporting me to/from the show. It was very easy and enjoyable.*

2016

- *Iris arranged for my hotel in NY.*
- *Perle helped coordinate with the organizer and helped find a return flight, which was not that straightforward from such a remote place*
- *Everything worked well*

2017

- *Everything was well set up.*
  - *Perle Dorr, IRIS contact was very helpful with travel arrangements and logistics, keeping me informed, reminding me of the details, and finding the opportunity in the first place*
- (5)

Please describe any suggestions you have to improve the IRIS/SSA Distinguished Lecture Series or any additional comments you feel are relevant.

2015

- *Patrick scheduled me here without giving me any background info - I could not figure out why he wanted me to lecture at a community college in a remote rural location that was a really big travel hassle. After the visit I understood, but its another case where a short phone call to discuss the venues and schedules would have been useful.*
- *I really appreciated that Bob Butler met me prior to the talk and drove me to the venue. It's always helpful to have a chat with a local scientist/educator and find out more about the venue.*
- *This is a great program overall; very much appreciated by Museum staff.*
- *Scheduling a talk at a local university is very beneficial. An overall comment is that more interaction with the speakers before the start of the lecture series would be very*

*helpful - getting a call laying out the goals of the program, discussing the various venues, etc.*

2016

- *Everything went smoothly. The museum staff were great and thrilled to have me. They arranged for 3 media interviews. I was happy with the experience. The numbers could have been a bit higher, but otherwise it was good. I guess the one thing I would hope for in the future is direct contact with the host organization a bit earlier (a week or two perhaps).*

2017

- *Keep Perle on the task - she's great!*
- *Excellent experience, no suggestions.*
- *This was only my second one and no others are planned. I had thought there would be more lectures, say half a dozen or so, to make best use of the resources.*
- *The program is very well managed - nothing comes to mind yet.*
- *The issues were technical, requiring modification of slides to meet their unique requirements (42 pt font). I note that the boilerplate slide that IRIS sent me did not meet this requirement! Also, I planned a 30-minute presentation and had 28 slides. Ten minutes before submitting I was told 20 minutes so I had to cut back to 21 slides. While I can do these sorts of changes, the cost was high for limited improvement.*
- *Quite satisfied with the arrangement.*

### **Speaker Feedback**

Through an email conversation with program organizers, speakers were asked to provide benefits and challenges of their experience or other information collected. Overall, the speakers reported that their experience was positive citing specifically their interactions with the public and colleagues at each location, developing a talk that was approachable for all audiences, and having the opportunity to talk about topics important to them. Challenges discussed included last minute changes to talk requirements, needing effective communicating about the venue and expectations, and the belief that there should be additional opportunities to present their work.

#### **Benefits to speakers**

- *Exposed audiences to uses of seismology beyond just responding to damaging earthquakes which are on TV. Specific – it made me think more about non-scientist audiences, and how to explain tricky concepts.*
- *Each trip provided an opportunity to interact with the local community both in the seminar and at extracurricular activities.*
- *Each effort also keeps me connected and informed of the views of different segments of the population, “consumers of our research” so to speak.*
- *I always enjoy engaging with the public. I think it's easy on this particular topic given its controversial nature.*
- *It was a good exercise for me to put together a talk and make it accessible to the broader audience. It is a little different from giving a general education lecture at UCLA and I liked the challenge of conveying multiple ideas within less than an hour!*

- *The Public seminar strategy is excellent; basically it gets continuing education audiences to hear about our science and they are interested, well-educated folks for the most part, so it is a pleasure to lecture to them and to interact over questions.*

#### Challenges

- *Difficult travel arrangements*
- *Last-minute changes to the program*
- *Would like more lecture opportunities*
- *Limited information on venue and expectations*

### II.C. Participant Feedback

At different times throughout the Distinguished Lecture Series, feedback from the audiences has been collected by the venue hosting the event.

#### Feedback from November 2017

- *Missed Q and A where what to do would have been answered*
- *Thank you for hosting this!*
- *Perfect amount of time for the speaker, presentation was interesting, was hoping there could've been a longer Q&A session*
- *Just how awesome it was. I'd go every day of the week to these science talks.*
- *Q&A was quite short and many people were unable to get their questions answered-- questions were only taken from about three people, and many more were lined up! While Dr. Vidale did go over his time, I believe many/most of the people there would have had no problem staying to hear a full Q&A. Of course, anyone who wanted to leave would still have been free to do so. I'm not sure why Dr. Vidale overshooting his time necessarily meant the whole thing had to be wrapped up so hastily. Researchers tend to love what they do and love speaking about it, and Dr. Vidale appears to be no exception. If the worry is that not wrapping up "on time" disrespects speakers even in cases where the speakers themselves cause the overrun, I would recommend possibly giving speakers the choice as to what to do in the event they overshoot their time.*
- *It was really boring. Earthquake 101. Wasn't sure what the point of it was.*

#### Feedback from July 2017

- 11 participants completed the survey
- Five (45%) reported being members of the museum
- All of the participants had been to the museum before
- Participants reported coming to the museum twice a month (27%) and less than once a month (27%)
- 67% reported hearing about the event online or through social media
- 80% reported the topic was an important factor for their attending followed by the venue (70%) and the speaker (70%)
- 83% were satisfied or highly satisfied by their experience

#### Feedback from 2015 “Global Surge of Earthquakes”

- 15 participants completed the survey
- 82% were members
- 87% had been to other programs at AMNH attending astronomy programs (73%) and science/nature events and lectures (67%)
- Participants attended the event because of the topic (100%), the speaker (33%), and the venue (20%)
- Participants heard through print or online article/listing (53%) and through museum email (47%)
- Participants used words like “informative,” “excellent,” and “visual” when describing their experience
- 100% of the respondents reported that the program meet their expectations
- Participants liked the lecture and information tables best
- Prior to the program, respondents reported an average of 2.6/5 as the familiarity with the subject with a mean response of 4.2 after
- Additional topics of interests included volcanoes, astronomy, biodiversity, water and droughts
- Respondent age groups were older than 75 (25%), 55 to 64 (33%), 35 to 34 (25%)
- Most (64%) reported being female
- 78% would like to receive information about additional programs

#### Feedback from June 2016

- An estimated 100 guests at the event
- When asked, “What did you like most about tonight’s Science Pub?”
- Participants responses:
  - Great Presentation
  - Good presentation followed by q&a
  - Tonight’s was great! The speaker had a clear point and has obviously done this presentation before. He’s a really great presenter.
  - Learned a ton
  - Learned that some of the things I thought I knew were wrong!
  - The speaker was cute
  - Speaker was competent

#### Feedback from July 2015

- We had a great Science Pub last night with Dr. Lay. We had a record crowd at that location, 327 and heard lots of good feedback. We always like to send the feedback we received from our guests on the evaluations, so that information is below. And Sonali went online and filled out your evaluation. Let me know if you have any questions.

#### What did you like most at tonight’s Science Pub?

- Science!
- Subject.
- Quality of visuals; well-paced presentation.
- Excellent talk from one of the world’s foremost seismologists!

- Crowd participation.
- Great talk. Greatly appreciated the depth and breadth of speakers knowledge.
- Facts in presentation.
- Interesting topic.
- Great visuals.
- Great speaker!
- Intellectually challenging.
- Excellent presentation.
- Graphics; state of seismology.

How could we improve the next Science Pub?

- Way too technical.
- Balance technical details with visual/verbal anecdotes.
- The talk was too academic for me.
- Perhaps greater speaker awareness of lay audience.

### **III. Conclusions and Options for the Future**

The IRIS/SSSA Distinguished Lecture Series contributes to IRIS's goal of expanding Earth Science awareness through offering opportunities for the public to understand and appreciate seismology.

All of the venue hosts described their lectures as successful in presenting relevant content to their audiences and expressed interest in hosting lectures in the future (82%).

- It is estimated that approximately 3400 people attended the 22 events from 2015-2017 either in person or virtually with an average at each event of 153 people.
- The presenters (88%) reported that the venues chosen were appropriate and could be used again to host lectures.

The type of lectures given was seen appropriate based on the host and speaker feedback.

- 91% of the lectures' levels were described as being "about right" for their audiences with only 9% being described as "too technical."
- 100% of the host venues agreed or strongly agreed that the audience engaged with the speaker during and/or after the IRIS/SSA Distinguished Lecture.

Venues would like to be contacted throughout the year.

- Institutions would like to be contacted about the lecture series whenever they become available so they can fit them into their schedules. They reported being able to plan them at various times during the year including Jan-Mar (25%), Apr-Jun (10%), Jul-Sep (10%), Oct-Dec (15%), and at other times (30%).

Evaluation by attendees is beneficial. Some feedback was been collected about the experience of the audiences and offered anecdotally in comments. All the venues that collected individual attendee data offered to share it with IRIS. It is recommended that a more systematic feedback

process for receiving attendee comments be offered to the venues, that IRIS offer to analyze the data, and provide it to the venue to use as the basis of planning future events.

- About half of the sites (56%) did not collect feedback from attendees following the presentation. Those that did were all willing to share their data.
- Most institutions described the Lecture Series as impactful and offered anecdotal evidence such as comments from attendees that it was a great success. Suggestions included having some additional content ahead of time for audiences and providing overview materials for distribution.

Feedback from the venues and presenters indicates that most of the logistics were well done but some additional attention at some venues would improve the experience.

- All (100%) the presenters reported having the venue address and a name and contact number prior to arriving at the venue. 88% (7/8) reported having the venue's suggested arrival time.
- To make the events even better, the presenters suggested ensuring the sound was functional and connected beforehand, using an appropriately sized room, and better projectors and microphones.