



**NATURAL
HAZARDS
CENTER**



We envision a just and equitable world where knowledge is applied to ensure that humans live in harmony with nature.



Welcome to the Social Science Extreme Events Research (SSEER) Virtual Forum – Puerto Rico Earthquakes

Friday, January 17, 2020
2:00 to 3:00 p.m. MST



University of Colorado **Boulder**

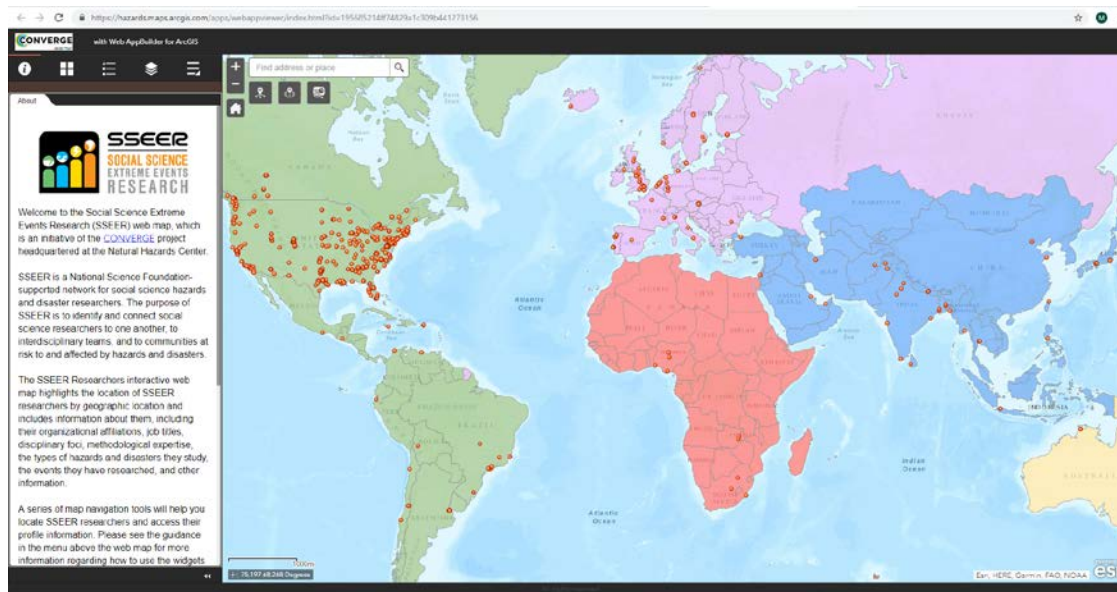
NSF Award #1841338





Mission

- (1) **identify, map, and connect** social scientists to one another, to interdisciplinary teams, and to communities at risk to and affected by hazards and disasters
- (2) **amplify and advance** social science extreme events research through providing training and mentoring, setting new scientific agendas, and supporting virtual and field research efforts.





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2020 Puerto Rico Earthquake Sequence

Earthquakes detected between December 28, 2019 as of January 16, 2020. Subject to updates.

>300 M3+ earthquakes recorded* since Dec. 28, 2019 (within 40km) strong enough to be felt	10 M5+ earthquakes recorded* since Dec. 28, 2019 (including M6.4) large enough to do damage	M5.0 10km S of Indios, Puerto Rico 2019-12-29 01:06:00 (UTC)	M5.8 13km SSE of Indios, Puerto Rico 2020-01-06 10:32:18 (UTC)	M6.4 8km S of Indios, Puerto Rico 2020-01-07 08:24:26 (UTC)	M5.9 13km SE of Guanica, Puerto Rico 2020-01-11 12:54:45 (UTC)
		486 Responses Did You Feel It?	934 Responses Did You Feel It?	2,420 Responses Did You Feel It?	1,302 Responses Did You Feel It?

* Data as of 2020-01-16 19:38:30 (UTC)

SCIENCE IN ACTION

A special thanks to our Advanced National Seismic System (ANSS) partner, the Puerto Rico Seismic Network (PRSN) at University of Puerto Rico at Mayaguez.

Top left: Scientist, Jim Smith, working on cabling inside of Luchochi dam in Puerto Rico town, in September 2015, assisting the Puerto Rico Strong Motion Program with Hurricane Maria recovery efforts.

Bottom middle: Jose Cancel of Puerto Rico Seismic Network (PRSN), Alena Leads of USGS and Javier Santiago of PRSN install a temporary seismometer at Sabana Yegua in southwestern Puerto Rico on Jan. 10, 2020.

Background and right: Puerto Rico damage January 2020.

U.S. Department of the Interior
 U.S. Geological Survey

i M6.4 Earthquake Forecast Information www.usgs.gov/pr-2020



Source: www.usgs.gov/news/magnitude-64-earthquake-puerto-rico





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Purpose:

- (1) **Learn** from SSEER Researchers
- (2) **Discuss** ethical considerations and possibilities for research coordination
- (3) **Identify** research questions / needs for perishable or baseline data collection on social impacts
- (4) **Establish** whether there is a need for additional social science research support and **identify** who may wish to join an SSEER field team





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Process – Learn from:

- (1) Locally-affected SSEER researchers
- (2) Social scientists in Puerto Rico now
- (3) Leaders of Puerto Rico-focused coordination networks
- (4) SSEER Researchers with ongoing projects in Puerto Rico
- (5) Participants – Questions, Comments, Additional Information and Resources

-Notes

-Chat Function

-Recording





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Process:

(1) Locally-affected SSEER researchers

- Name, title, affiliation
- 1-2 minute update
 - If you are an SSEER network member in Puerto Rico, please place your name in the **Chat Box** if you wish to provide an update. I will also ask for those on the telephone once we move through the Chat Box.





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Process:

(1) Locally-affected SSEER researchers

(2) Social scientists in Puerto Rico now

- Name, title, affiliation
- 1-2 minute update
 - If you are a social scientist in Puerto Rico now, please place your name in the **Chat Box** if you wish to provide an update. I will also ask for those on the telephone once we move through the Chat Box.





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Process:

- (1) Locally-affected SSEER researchers
- (2) Social scientists in Puerto Rico now
- (3) Leaders of Puerto Rico-focused coordination networks
 - Name, title, affiliation
 - 1-2 minute update
 - If you are leading a network helping to coordinate researchers in Puerto Rico, please place your name in the **Chat Box** if you wish to provide an update. I will also ask for those on the telephone once we move through the Chat Box.





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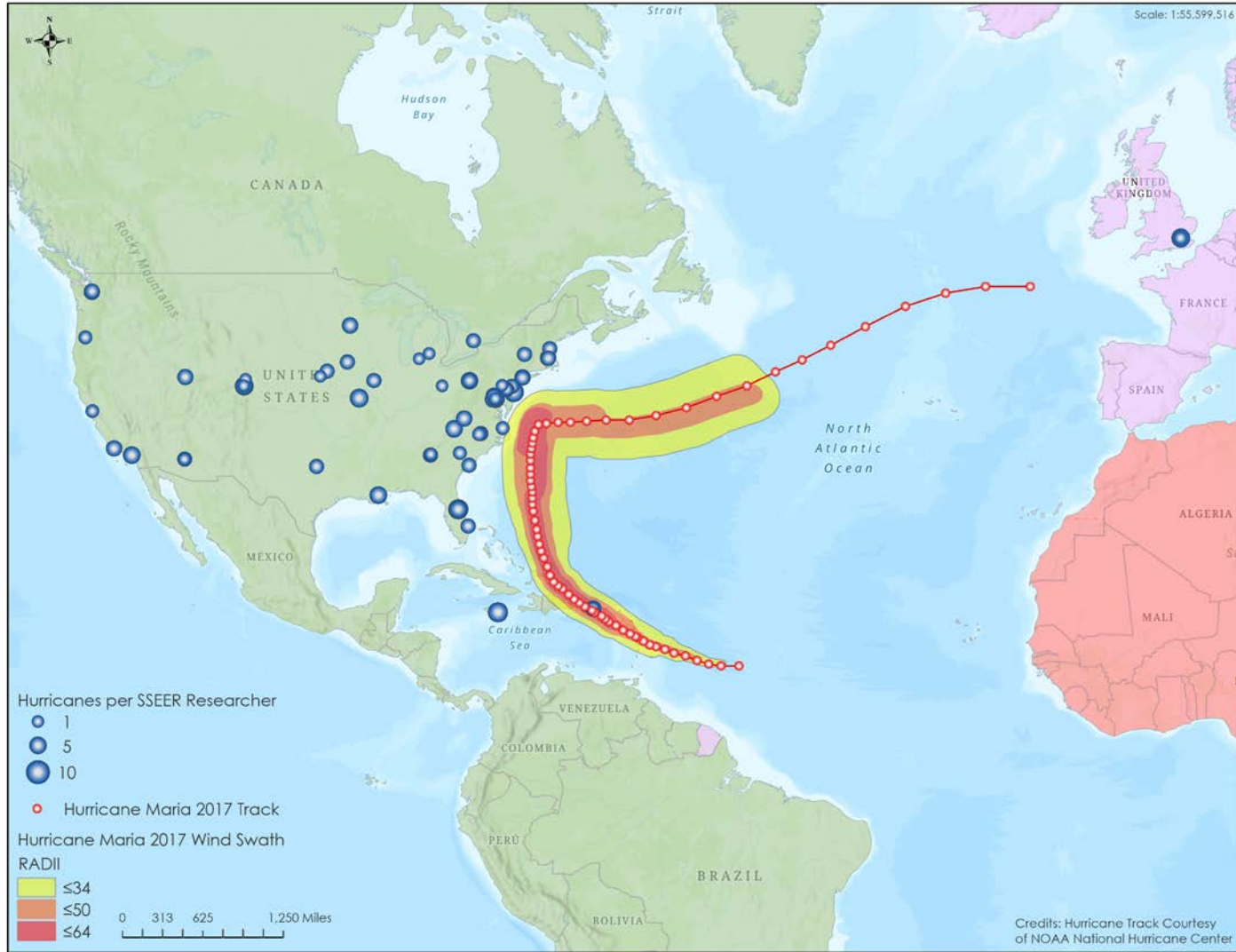
Virtual Forum – Puerto Rico Earthquakes

Process:

- (1) Locally-affected SSEER researchers
- (2) Social scientists in Puerto Rico now
- (3) Leaders of Puerto Rico-focused coordination networks
- (4) SSEER researchers with ongoing projects in Puerto Rico
 - Name, title, affiliation
 - 1-2 minute update
 - If you are an SSEER network member with a project in Puerto Rico, please place your name in the **Chat Box** if you wish to provide an update. I will also ask for those on the telephone once we move through the Chat Box.



Locations of the SSEER researchers who studied Hurricane Maria, 2017





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Process:

- (1) Locally-Affected SSEER researchers
- (2) Social Scientists in Puerto Rico now
- (3) Leaders of Puerto Rico-focused Coordination Networks
- (4) SSEER Researchers with ongoing projects in Puerto Rico
- (5) Participants – Questions, Comments, Additional Information and Resources
 - Name, title, affiliation
 - 1-2 minute update
 - If you have information or a comment, please place your name in the **Chat Box**. I will also ask for those on the telephone once we move through the Chat Box.



Next Steps:

**Questions, Comments,
Resources, or
Join an SSEER Field
Team?**



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Contact Us at:
SSEER@colorado.edu



Sign Up for resources and updates at:

converge.colorado.edu/signup

View the SSEER Map at:

converge.colorado.edu/research-networks/sseer/researchers-map

The Virtual Forum recording, notes, and other resources will be posted at:

converge.colorado.edu/communications/virtual-forum/sseer-puerto-rico-earthquakes



Keep the conversation going...

Join the SSEER Slack Channel on DesignSafe-CI
converge.colorado.edu/research-networks/sseer



NHERI: A NATURAL HAZARDS ENGINEERING RESEARCH INFRASTRUCTURE





obrigado

Dank U

Merci

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спасибо

Grazie

Thank
you

mauruuru

Takk

Gracias

Dziękuję

Děkuju

danke

Kiitos