



## Special Issue Editor's Essay: Advancing Public Health Crisis and Risk Theory and Practice via Innovative and Inclusive Research on COVID-19 Communication

Yan Jin<sup>1</sup> , Sung In Choi<sup>1</sup> , and Audra Diers-Lawson<sup>2</sup> 


1. Grady College of Journalism and Mass Communication, University of Georgia, Athens, GA, USA
2. School of Public Relations and Journalism, Leeds Business School, Leeds Beckett University, Leeds, GB

### ABSTRACT

For more than a year the world has tried to respond to the COVID-19 pandemic. This special issue of the *Journal of International Crisis and Risk Communication Research (JICRCR)* provides an expert evaluation of how different countries have responded to this global threat. As the pandemic has fundamentally affected most of our lives in a multitude of ways, lessons learned and insights gained from innovative and inclusive research have also advanced theory and practice in public health crisis and risk communication.

**KEYWORDS:** COVID-19, JICRCR, crisis, risk, public health, international, WHO

In late February 2020 the COVID-19 emergency was beginning to emerge into public view and risk and crisis communication researchers and practitioners were preparing to attend the annual International Crisis and Risk Communication Conference in Orlando, Florida, hosted by the University of Central Florida's Nicholson School of Communication and Media. Then editor Brooke Fisher Liu (2019–2020) asked the incoming editor Audra Diers-Lawson (2020–2022) what she thought of

**CONTACT** Yan Jin  • E-mail: [yanjin@uga.edu](mailto:yanjin@uga.edu) • Grady College of Journalism and Mass Communication • University of Georgia • 120 Hooper Street • Athens, GA 30602, USA



Copyright 2021 Authors. Published under a Creative Commons Attribution 4.0 International (CC BY-NC-ND 4.0) license.

pitching a special issue on COVID-19 to the journal's editor-in-chief, Timothy Sellnow. They believed it was an important special issue for the journal as did Sellnow and the Nicholson School of Communication and Media, the journal's sponsor. Just a week or two later in March and only a few days before the World Health Organization (WHO) declared the COVID-19 pandemic during the ICRCC conference, I was recruited as the guest editor for the journal's first special issue with a focus on the COVID-19 crisis and risk communication. At the conference's closing ceremony, the special call for the COVID-19 special issue was officially announced by the journal.

As Liu and Viens (2020) advocated in their reflection on the research gaps in the field of risk and crisis communication, our research needs to "expand its horizons with a more global perspective that better recognizes the work, theories, and differences around the world" such as "crises that span boundaries, including public health outbreaks" (p. 10). This special issue, focusing on the COVID-19 pandemic, a global public health crisis defining our time, responds to this call and directly contributes to closing research gaps by being nimble and responsive to emerging global risk, crisis, and emergency issues around the world (Liu & Iannaccone, 2020).

### **Joint Effort of a Global Community of Crisis and Risk Communication Scholars**

Between then and early December of 2020, we received an enormous amount of interest in publishing the special issue. As one of the first academic journals in our field to have a special call on COVID-19, we were uniquely positioned to receive scholarly works studying the risk and crisis communication aspects of COVID-19, especially how it is being communicated and responded to at the earlier stage of the pandemic embedded with high uncertainty, ambiguity, and complexity. This angle, aligning with the journal's aim, understanding and tackling the challenge of COVID-19 at the close intersection of crisis and risk communication (Seeger, 2018) with an emphasis on human and mediated communication

issues (Liu & Iannacone, 2020), differentiates our special issue from other COVID-19 special issues announced in other journals.

Between mid-December of 2020 to late March of 2021, a total of 52 crisis and risk communication scholars worldwide were committed to and completed their reviews for a large volume of submissions to the special issue (see *Appendix* for a full list of special issue reviewers and institutions). Articles submitted, reviewed, and included by the special issue are from both academic and nonacademic institutions in diverse locations around the globe. The enthusiasm demonstrated in a diverse group of manuscript authors and the commitment dedicated by a diverse taskforce of reviewers (from the journal's editorial board or post-hoc reviewers) exemplified the journal's growing community of excellence in risk and crisis communication—providing an outlet for specialists in the field and supporting new scholars from around the world (Liu, 2019; Liu & Iannacone, 2020).

### **Advancing Public Health Crisis and Communication Theory and Practice**

The COVID-19 pandemic, with embedded risk and crisis issues of deep penetration and wide-range impact, embodies the unique challenges from public health crises (Nowak & Greenwell, 2021) and contributed to the “sticky crisis” challenges, a new crisis concept first articulated by the University of Georgia's Crisis Communication Think Tank and later became the foundation for a new book, *Advancing Crisis Communication Effectiveness* (edited by Yan Jin, Bryan Reber, and Glen Nowak, 2021). A “sticky crisis” is caused by industry-wide, complex, and challenging crisis issues that are often intertwined and likely to reoccur in the future, near or afar (Coombs et al., 2021; Reber et al., 2021), impacting organizations, industries, and publics alike. According to Reber and colleagues (2021):

Sticky crises demand not only a near-instant response, but they may require crisis communicators to see possibilities, understand the potential breadth and scope of an emerging crisis, each which can bring it additional complexities and communication demands. (p. 7)

The COVID-19 pandemic is an embodiment of how a sticky public health crisis exerts its uncertainty, complexity, and severity, the management of which takes joint efforts from both scholars and practitioners around the globe.

Last but not least, as Claeys and Opgenhaffen (2016) pointed out, there is a “scholar-practitioner divide” (p. 233): crisis communicators (also risk communicators, we argue) often do not apply scholarship to inform their crisis response because “theories are too abstract and . . . are not readily applicable by professionals in times of crisis” (p. 238). This sheds light on the journal’s dual mission of extending theory and practice in order to continue closing the divide and bridging the gap by supporting risk and crisis communication scholarship with multidisciplinary contribution that provides advice for both researchers and practitioners as its primary purposes (Liu, 2019).

This special issue, including nine articles contributed by scholars and practitioners around the world and from both academic and non-academic institutions, contributed to the journal’s mission of advancing risk and crisis communication scholarship and practice (Diers-Lawson & Meißner, 2021; Liu, 2019; Liu & Iannacone, 2020; Liu & Viens, 2020; Seeger, 2018), as well as the scholar-practitioner shared vision of tackling the complex and recurring challenges of a sticky crisis (Reber et al., 2021) such as the COVID-19 pandemic, generates new and timely knowledge that advances the practice of the entire profession, which will help prepare organizations and public health authorities worldwide for future public health threats.

### **The Special Issue: Innovative and Inclusive Research on COVID-19**

The special issue reflects the wide range and reach of crisis and risk communication research of the journal (Seeger, 2018), emphasizing quality and impact as demonstrated in developing “new approaches, theories, and insights about crisis and risk communication” (Liu, 2019, p. 9) and advancing crisis and risk communication, especially in public health domain, in terms of both depth and breadth. Below are a preview and reflection on the nine articles

included in the special issue. Together, the COVID-19 pandemic crisis and risk communication issues are examined via qualitative (e.g., textual analysis, interviews, and participant observation) and quantitative approaches (e.g., survey and big-data content analysis) across a wide range of cultures and locations globally (i.e., Austria, Ghana, Greece, Norway, Singapore, Sweden, and the United States). The diversity of authors, topics, and the inclusion of multiple cultures from Africa, Asia, Europe, and North America echo the journal's call for disseminating scholarship for researchers and professionals worldwide (Liu, 2019).

### **Special Issue Articles**

The first three articles set the foundation for reviewing the key frameworks in crisis and risk communication research with in-depth, qualitative analyses of messages conveyed via the voices of government officials and health authorities in different parts of the world (i.e., Ghana, Norway, and the United States), emphasizing the critical role of conveying, evoking, and sustaining *trust* in government-led public communications at the onset of a health crisis. Grounded in theory, Adu Gyamfi and Amankwah qualitatively analyze 14 speeches delivered by the Ghanaian President on the COVID-19 pandemic in the country to demonstrate how the speeches conveyed information about the pandemic to the public. They identified seven crisis and emergency risk messaging best practices: explain what is known, explain what is not known, explain how or why the event happened, promote action steps, express empathy, express accountability, and express commitment. Voges and Binford turn their textual analysis lens to how state governments in the United States' communicated about the COVID-19 pandemic as evidenced in governors' first press release responses across the country. Taking a social trust approach to risk communication and using the external threat variables in the contingency theory of strategic conflict management, they identified five thematic trends revealed in the first round of official state governments' COVID-19 public communication. Offerdal and colleagues re-envision available means of persuasion by revisiting the classical rhetorical concept of *ethos*. Based on interviews

and participant observation in public health institutions in Norway, they examine how appeals to ethos may build trust in health authorities' public communication during the COVID-19 pandemic. They report the value of understanding the rhetorical situation of a pandemic and the importance of active communication with transparency in building public trust in authorities' risk communication.

The next three articles focus on the perspective of the public on how different stakeholders responded to organizational communication efforts about the COVID-19 pandemic, jointly emphasizing the imperative of *transparent communication* in facilitating *public coping* with an ongoing public health crisis. Via a survey among employees, Stranzl and colleagues examine employees' perception of organizational transparency during the long-lasting situation of the COVID-19 pandemic in Austria. They find that employees' perception of their organization's approach to transparency directly influenced their job engagement and disengagement (the latter also mediated through organizational trust and job-specific anxiety), highlighting the importance of transparency during times of high uncertainty and the urgent need to care for employees' emotional well-being during a crisis. In the context of COVID-19 risk communication in Singapore, by examining comments on five Singapore media outlets' Facebook pages via big-data content analysis, Chen and colleagues capture what topics are being discussed by the public and the social-psychological processes that characterize Singaporean communities' reactions to the pandemic and the implemented precautionary measures. With evidence, they argue that understanding individuals' psychological concerns is a critical first step toward formulating risk communications that may lead to better health outcomes. Taking a slightly different turn, Johansson and colleagues explore a rather-puzzling question: Why don't Swedes wear face masks during the pandemic? And according to the authors, the answer lies with the consequence of the public's high (blind) trust in the government (i.e., higher government trust reduces the likelihood of wearing face masks), based on a large Swedish survey fielded during the pandemic. They call for more research on the trust-compliance relationship that might enhance

or harm crisis management effectiveness in facilitating citizens' crisis coping efforts.

Two in-depth case analyses, via textual and rhetorical analyses, further illustrate not only how organizations communicate about the COVID-19 to the public or stakeholders but also the impact of contexts, locations, and organizational structures and characteristics on the *community sense-making process* throughout the cycle of crisis management (especially at the pre-crisis planning stages and/or the beginning stages of a crisis). First, Hayes and colleagues explore how rural and urban Texas hospitals in the United States communicated about the COVID-19 pandemic, based on a rhetorical analysis of press releases from these two hospital systems. They find that the use of setting details is effective for the hospitals to ground their health-related information in their specific communities, which made information accessible and attainable but potentially reinforced place-based tensions and inequalities. Aspriadis further provides a case study, via discourse analysis of public briefings and speeches, on how the government officials and public health authorities in Greece managed two waves of COVID-19 in 2020. The author assesses the Greek government's crisis management efforts by identifying message framing and rhetorical strategies implemented crisis communication procedures and diagnosing their (in)effectiveness in documented outcomes during the two waves of the same public health crisis.

The special issue closes with an article that calls for the need of managing and communicating about invisible hazards. In the context of Norway, Skotnes and colleagues discuss differences between *invisible and visible hazards* and make a strong case for authorities to be vigilant about the possible differences in risk perception among authorities, the public, and various stakeholders. They point out that invisible hazards (e.g., COVID-19) are often uncertain, complex, and ambiguous risk problems. The findings and implication serve as a strong call for future research and practice that involve citizens, creating trust, and being honest, highlighting trust and transparency keywords in *managing complexity, uncertainty, and ambiguity* in risk and crisis communication.



## Review and Reflection

Although COVID-19 is a global pandemic, crisis and risk research regarding this topic nevertheless has its geographic and thematic bias (Diers-Lawson & Meißner, 2021). Different countries have different characteristics, contributing to the observed uniqueness of how COVID-19 has been communicated about and responded in different geographic locations and cultures (Dryhurst et al., 2020; Petridou & Zahariadis, 2021; Schneider et al., 2021; Subert, 2020). This observation is echoed, loud and clear, in studies included in our special issue. Reflecting upon current COVID-19 crisis and risk communication research, we identify three themes.

The first theme is the essential role of trust in pandemic communication and health crisis management. Trust has been one of the focal concepts studied in risk research (Liu & Mehta, 2020). Since the COVID-19 pandemic, there has been a surge in trust-focused studies in scholarly outlets such as *Journal of Risk Research* and *Journal of Contingencies and Crisis Management* (Balog-Way & McComas, 2020; Lee & Li, 2021). Studies included in our special issue examine trust in relation to government communication strategies (e.g., trust in government officials and health authorities in Ghana, Norway, and the United States). Trust in media channels, especially as channels of delivering health risk information (Appleby-Arnold et al., 2019), has become a critical subject of COVID-19 risk research (Schneider et al., 2021). Recent inquiries about the controversial role of new media (e.g., social media), whether it increases or decreases publics' trust in crisis and risk information (Appleby-Arnold et al., 2019; Nutbeam, 2020), further highlight the urgent need for more in-depth understanding of publics' trust in different sources and media channels, which vary by country and differ in specific contexts of COVID-19 pandemic communication (Nutbeam, 2020).

The second theme is the urgent need of understanding and tackling misinformation challenges. Effective communication in a pandemic takes an interactive process of information exchanges between individuals, groups, institutions, and even governments. Information disorders, such as the unprecedented surge of misinformation about COVID-19, disrupt exchanges of accurate information and threaten public health and safety. Although



misinformation has been studied by risk communication scholars (Krause et al., 2020) in a relatively substantial range of international perspective (Hansson et al., 2021; Krause et al., 2020; Yoo & Choi, 2019), more research is needed to study different forms of misinformation (with varying shades of facticity) and explore how increased public trust in news media and government authorities might motivate individuals to digest COVID-19 information and act upon recommendations from health authorities (Hansson et al., 2021). As heralded by one of our special issue articles, the rise of COVID-19 misinformation embodies the danger of invisible hazards, the understanding of which, including identifying and analyzing the complex risk characteristics that confound the process of crisis and risk communication, is to be furthered.

The third theme is the increasing diversity of research methods and approaches to crisis and risk communication. Articles in our special issue have exhibited a balance of qualitative approach (e.g., textual analysis, interviews, and participant observation) and quantitative approach (e.g., survey and big-data analysis), which, together, help weave a rich tapestry depicting the interaction of different factors driving COVID-19 communication and interpreting these complex phenomena with culturally grounded insights. By so doing, our special issue directly addresses the need of understanding and addressing “wicked” or persistent problems affecting people globally (Diers-Lawson & Meißner, 2021) by emphasizing international perspectives and methodological diversity in closing knowledge gaps about COVID-19 pandemic communication.

### **Looking Ahead**

The field of crisis and risk communication research, in light of the sticky crisis challenges and the ongoing efforts of bridging the academic-industry gap and the cultural and geographic divides, is at an exciting new era of going both deeper and broader in terms of research depth and impact spread. However, as a global community of scholars that advance theories and research-based insights that provide advice and values to practice, we need to support the growth and address blind spots (Diers-Lawson & Meißner, 2021).

Directly echoing the call for more research better reflecting the global environment and diverse crisis and risk contexts

(Diers-Lawson & Meißner, 2021), this special issue, using the COVID-19 pandemic as a focal point (mandating cross-cultural and multi-perspective approaches), exhibits innovative and inclusive scholarship that advances crisis and risk communication theory and practice, contributing to tackling highly sticky crisis issues with their recurrent and severe nature (Coombs et al., 2021; Reber et al., 2021).

To close, as Liu and Iannacone (2020) mentioned, “while the world’s attention remains on the COVID-19 pandemic, we must rise to the challenge of disseminating research that can support responses to this crisis and the ones that we will face in the future” (p. 140). It is an honor to be the special issue editor, working with the entire editorial team and our community of scholars and practitioners to learn from the past, reflect on the present, and inspire what is to come near and afar.

## ORCID

Yan Jin  <https://orcid.org/0000-0003-4228-5529>

Sung In Choi  <https://orcid.org/0000-0002-9208-6758>

Audra Diers-Lawson  <https://orcid.org/0000-0003-2584-5061>

## References

- Appleby-Arnold, S., Brockdorff, N., Fallou, L., & Bossu, R. (2019). Truth, trust, and civic duty: Cultural factors in citizens’ perceptions of mobile phone apps and social media in disasters. *Journal of Contingencies and Crisis Management*, 27(4), 293–305. <https://doi.org/10.1111/1468-5973.12282>
- Balog-Way, D. H. P., & McComas, K. A. (2020). COVID-19: Reflections on trust, tradeoffs, and preparedness. *Journal of Risk Research*, 23(7–8), 838–848. <https://doi.org/10.1080/13669877.2020.1758192>
- Claeys, A., & Opgenhaffen, M. (2016). Why practitioners do (not) apply crisis communication theory in practice. *Journal of Public Relations Research*, 28(5–6), 232–247. <https://doi.org/10.1080/1062726X.2016.1261703>

- Coombs, W. T., Holladay, S. J., & White, R. (2021). Sticky crises and corporations. In Y. Jin, B. H. Reber, & G. J. Nowak (Eds.), *Advancing Crisis Communication Effectiveness: Integration of Public Relations Scholarship and Practice* (pp. 35–51). Routledge.
- Diers-Lawson, A., & Meißner, F. (2021). Editor's essay: Moving beyond Western corporate perspectives: On the need to increase the diversity of risk and crisis communication research. *Journal of International Crisis and Risk Communication Research*, 4(1), 165–176. <https://doi.org/10.30658/jicrcr.4.1.6>
- Dryhurst, S., Schneider, C. R., Kerr, J., Freeman, A. L. J., Recchia, G., van der Bles, A. M., Spiegelhalter, D., & van der Linden, S. (2020). Risk perceptions of COVID-19 around the world. *Journal of Risk Research*, 23(7–8), 994–1006. <https://doi.org/10.1080/13669877.2020.1758193>
- Hansson, S., Orru, K., Torpan, S., Bäck, A., Kazemekaityte, A., Meyer, S. F., Ludvigsen, J., Savadori, L., Galvagni, A., & Pigrée, A. (2021). COVID-19 information disorder: Six types of harmful information during the pandemic in Europe. *Journal of Risk Research*. <https://doi.org/10.1080/13669877.2020.1871058>
- Jin, Y., O'Connor, M., Reber, B. H., & Nowak, G. J. (2021). The future of collaborative research. In Y. Jin, B. H. Reber, & G. J. Nowak (Eds.), *Advancing Crisis Communication Effectiveness: Integration of Public Relations Scholarship and Practice* (pp. 233–250). Routledge.
- Jin, Y., Reber, B. H., & Nowak, G. J. (Eds.) (2021). *Advancing Crisis Communication Effectiveness: Integration of Public Relations Scholarship and Practice*. Routledge.
- Krause, N. M., Freiling, I., Beets, B., & Brossard, D. (2020). Fact-checking as risk communication: The multi-layered risk of misinformation in times of COVID-19. *Journal of Risk Research*, 23(7–8), 1052–1059. <https://doi.org/10.1080/13669877.2020.1756385>
- Lee, Y., & Li, J. Q. (2021). The role of communication transparency and organizational trust in publics' perceptions, attitudes and social distancing behaviour: A case study of the COVID-19 outbreak. *Journal of Contingencies and Crisis Management*. <https://doi.org/10.1111/1468-5973.12354>

- Liu, B. F. (2019). Editor's essay: The critical need for crisis and risk communication research. *Journal of International Crisis and Risk Communication Research*, 2(1), 7–11. <https://doi.org/10.30658/jicrcr.2.1.1>
- Liu, B. F., & Iannacone, J. (2020). Reflections on editing the journal: Current status and future directions. *Journal of International Crisis and Risk Communication Research*, 3(2), 137–140. <https://doi.org/10.30658/jicrcr.3.2.1>
- Liu, B. F., & Mehta, A. M. (2020). From the periphery and toward a centralized model for trust in government risk and disaster communication. *Journal of Risk Research*. <https://doi.org/10.1080/13669877.2020.1773516>
- Liu, B. F., & Viens, J. I. (2020). Crisis and risk communication scholarship of the future: Reflections on research gaps. *Journal of International Crisis and Risk Communication Research*, 3(1), 7–13. <https://doi.org/10.30658/jicrcr.3.1.1>
- Nowak, G. J., & Greenwell, M. (2021). A promising but difficult domain: Complex health-related crises and academic-professional collaboration. In Y. Jin, B. H. Reber, & G. J. Nowak (Eds.), *Advancing Crisis Communication Effectiveness: Integration of Public Relations Scholarship and Practice* (pp. 77–91). Routledge.
- Nutbeam, D. (2020). COVID-19: Lessons in risk communication and public trust. *Public Health Research & Practice*, 30(2), e3022006. <https://doi.org/10.17061/phrp3022006>
- Petridou, E., & Zahariadis, N. (2021). Staying at home or going out? Leadership response to the COVID-19 crisis in Greece and Sweden. *Journal of Contingencies and Crisis Management*. <https://doi.org/10.1111/1468-5973.12344>
- Reber, B. H., Yarbrough, C. R., Nowak, G. J., & Jin, Y. (2021). Complex and challenging crises: A call for solutions. In Y. Jin, B. H. Reber, & G. J. Nowak (Eds.), *Advancing Crisis Communication Effectiveness: Integration of Public Relations Scholarship and Practice* (pp. 3–16). Routledge.

- Schneider, C. R., Dryhurst, S., Kerr, J., Freeman, A. L. J., Recchia, G., Spiegelhalter, D., & van der Linden, S. (2021). COVID-19 risk perception: A longitudinal analysis of its predictors and associations with health protective behaviours in the United Kingdom. *Journal of Risk Research*. <https://doi.org/10.1080/13669877.2021.1890637>
- Seeger, M. W. (2018). Answering the call for scholarship: The Journal of International Crisis and Risk Communication Research. *Journal of International Crisis and Risk Communication Research*, 1(1), 7–10. <https://doi.org/10.30658/jicrcr.1.1.1>
- Subert, M. (2020). A gender-sensitive approach to U.S. crisis communication for COVID-19 and beyond. *Journal of Contingencies and Crisis Management*, 28(4), 487–489. <https://doi.org/10.1111/1468-5973.12325>
- Yoo, W., & Choi, D.-H. (2019). Predictors of expressing and receiving information on social networking sites during MERS-CoV outbreak in South Korea. *Journal of Risk Research*, 23(7–8), 912–927. <https://doi.org/10.1080/13669877.2019.1569105>

## **Appendix**

### **List of Reviewers for COVID-19 Special Issue**

Doug Ashwell, Massey University, New Zealand  
Elizabeth Johnson Avery, University of Tennessee, United States  
Mark Badham, University of Jyväskylä, Finland  
Courtney Boman, University of Alabama, United States  
Michael Cacciatore, University of Georgia, United States  
Luke Capizzo, James Madison University, United States  
An-Sofie Claeys, Ghent University, Belgium  
Audra Diers-Lawson, Leeds Beckett University, United Kingdom  
LaShonda Eaddy, Penn State University, United States  
Amiso George, Texas Christian University, United States  
Robert Heath, University of Houston, United States  
Yi-Hui Christine Huang, City University of Hong Kong, Hong Kong  
Irina Iles, Food and Drug Administration, United States  
Joel Iverson, University of Montana, United States  
Hyoyeun Jun, Salve Regina University, United States  
Eyun-Jung Ki, University of Alabama, United States  
Jangyul Kim, Colorado State University, United States  
Seoyeon Kim, University of Alabama, United States  
Sungsu Kim, Kookmin University, South Korea  
Erica Kuligowski, RMIT University, Australia  
Kenneth Lachlan, University of Connecticut, United States  
Yen-I Lee, Washington State University, United States  
Xialing Lin, Pennsylvania State University, United States  
Robert Littlefield, University of Central Florida, United States  
Brooke Fisher Liu, University of Maryland, United States  
Alessandro Lovari, University of Cagliari, Italy  
Karen McIntyre, Virginia Commonwealth University, United States

Amisha Mehta, Queensland University of Technology, Australia  
Florian Meißner, Macromedia University of Applied Sciences, Germany  
Henrik Olinder, Swedish Civil Contingencies Agency, Sweden  
Tyler Page, University of Connecticut, United States  
Augustine Pang, Singapore Management University, Singapore  
Candace Parrish, Sacred Heart University, United States  
Jeanne Persuit, University of North Carolina-Wilmington, United States  
Silvia Ravazzani, Università IULM, Italy  
Hyejoon Rim, University of Minnesota, United States  
Juan Andrés Rincón González, Universidad Panamericana, México  
Andreas Schwarz, Technische Universität Ilmenau, Germany  
Henry Seeger, Purdue University, United States  
Matthew Seeger, Wayne State University, United States  
Deanna Sellnow, University of Central Florida, United States  
Timothy Sellnow, University of Central Florida, United States  
Minttu Tikka, University of Helsinki, Finland  
Toni van der Meer, University of Amsterdam, Netherlands  
Steven Venette, University of Southern Mississippi, United States  
Orla Vigsö, University of Gothenburg, Sweden  
Santosh Vijaykumar, Northumbria University, United Kingdom  
Daniel Vogler, University of Zurich, Switzerland  
Misse Wester, Lund University, Sweden  
Chelsea Woods, Virginia Polytechnic Institute and State University,  
United States  
Sifan Xu, University of Tennessee, United States  
Camila Espina Young, National Institute of Standards and Technology,  
United States



