

## Preface

The theme of the 2020 Physics Education Research (PER) Conference was *“Insights, Reflections, & Future Directions: Emergent Themes in the Evolving PER Community.”* This theme suffused both the organization and the communication regarding the conference: in the run-up to the conference, the organizing committee prepared and produced a blog touching upon various topics of import to the community, and -- despite the tremendous challenges wrought by the events of the year 2020 -- the conference theme was also apparent in the sessions and plenary sections of the conference.

The plenary bridging session took the format of a panel discussion moderated by the organizing committee and featuring community members from a variety of areas of expertise: Geraldine Cochran, Joseph Krajcik, Sarah B. McKagan, Valerie K. Otero, and Robert H. Tai. The lively panel discussion centered around the conference theme and touched upon issues such as defining and disrupting the idea of expertise within a discipline, questions that move beyond practice and policy, and even what -- and who -- defines physics.

PERC 2020 saw a huge departure from traditional conference implementation, as several professional organizations, including the PER community and its leadership, struggled to adapt to the changing constraints of the COVID-19 pandemic. PERC 2020 was hosted in an online format, with all of the modifications that implies. Dine & Discuss dinner groups were modified to Snack & Chat teleconference hangouts; game night was remote; hotel lobby conversations were hosted in a virtual game-like space; and many others. The organizing committee worked extremely hard to successfully adapt the bridging plenary and closing sessions, as well as the rest of the conference, to the online format. The latter also included a memorial tribute to the late Lillian McDermott from PERLOC member Stamatis Vokos.

The PERC 2020 organizing committee included Alexis Knaub, Beth Cunningham, Lin Ding, and Steve Maier. The committee was supported in their efforts by leadership from both the American Association of Physics Teachers (AAPT) and the PER Leadership and Organization Council (PERLOC).

The PERC Proceedings online submission and review process was supported by Lyle Barbato and Bruce Mason, who work closely with the editors to ensure smooth functioning of the online system. New to the 2020 Proceedings cycle was the implementation of a double-confidential format of peer review. The shift to this new format required hundreds of person-hours of effort beyond normal work, and the editorial team could not have made this implementation without Lyle's guidance and logistical support. The editors also thank AAPT for their ongoing Proceedings sponsorship, and for allowing it to be published open-access through the ComPADRE website.

As in every year, the editors wish to thank the referees for volunteering their time and expertise to give feedback to papers submitted to the Proceedings. This year 262 reviewers made recommendations on 141 submitted Peer-Review Section papers -- both authors and reviewers

adapting quickly to the new double-confidential format, with its earlier submission deadline and shorter review turnaround time. The PERC Proceedings is both an important archive of findings and also a place where many new members of the field publish their first physics education research, and we are deeply appreciative of the authors reviewers who make this year's cycle possible. Future cycles will improve upon the implementation of the double-confidential review process, but for a first-time implementation, the editorial team could not be more appreciative of the community for their efforts.

The editors thank Wendy Adams, John Aiken, Emily Allen, Benjamin Archibeque, Lauren Barth-Cohen, Ramon Barthelemy, Lauren Bauman, Ian Beatty, Sebastian Becker, Edmund Bertschinger, Lena Blackmon, Andrew Boudreaux, Sarah Braden, Jared Breakall, Cheyenne Broadfoot, Danielle Bugge, John Buncher, Jan-Philipp Burde, Eric Burkholder, Danny Caballero, Jared Canright, Ying Cao, Stephanie Chasteen, Zhongzhou Chen, Jacquelyn Chini, Devon Christman, Elaine Christman, Eleanor Close, Kim Coble, monie, Luke Conlin, Jonathan Corcoran, Giaco Corsiglia, Colleen Countryman, Nate Crossette, Sonja Cwik, Claudia De Grandi, Lin Ding, Liza Dopatka, Constance Doty, Daniel Doucette, Dimitri Dounas-Frazier (he/him), Andrew Duffy, Philip Eaton, Melissa Eblen-Zayas, Andrew Elby, Eugenia Etkina, Zachary Felker, Melanie Fields, Noah Finkelstein, Michael Fox, Claudia Fracchiolla, Maxwell Franklin, Scott Franklin, Anderson Fung, Andy Gavrin, Jordan Gerton, Julian Gifford, Nick Giordano, Vegard Gjerde, Fred Goldberg, Lisa Goodhew, Jenaro Guisasola, Matthew Guthrie, Brianne Gutmann, Alia Hamdan, Patti Hamerski, Brynna Hansen, Danielle Harlow, George Hassel, Thomas Head, Richard Hechter, Henderson, Rachel Henderson, Pachi Her, Paula Heron, Kathleen Hinko, brant hinrichs, Jessica Hoehn, Natasha Holmes, Martin Hopf, Lindsay House, James Huffman, Mike Hull, Bashirah Ibrahim, Paul Irving, Drew Isola, Lana Ivanjek, Joss Ives, Dena Izadi, Amali Priyanka Jambuge, Manher Jariwala, Sophia Jeon, ying jia, Paul Justice, Yasemin Kalender, Christof Keebaugh, Caitlin Kepple, Raina Khatri, Hien Khong, Pascal Klein, Kathleen Koenig, Joseph Kozminski, Mila Kryjevskaja, Jochen Kuhn, Elon Langbeheim, Alexandra Lau, James Lavery, Anne Leak, Smadar Levy, Heather Lewandowski, Yangqiuting Li, Will Lindsay, Dan Liu, Robynne Lock, Savannah Logan, Diana Lopez, Michael Loverude, Adrian Madsen, Alysa Malespina, Alexandru Maries, L. Trenton Marsh, Emily Marshman, Makenna Martin, Julian Martins, Andrew Mason, Jason May, Austin McCauley, Michele McColgan, Alistair McInerney, Sam McKagan, Daryl McPadden, Alexa McQuade, Jillian Mellen, Paul Miller, Khadijih Mitchell-Polka, Dr. Bahar Modir, Raphael Mondesir, Camila Monsalve, Andrew Morrison, Alexandria Muller, Carissa Myers, Michael Nadeau, William Newton, Jayson Nissen, Daniel Oleynik, Kristin Oliver, Alice Olmstead, Jack Olsen, Alexis Olsho, Lindsay Owens, Gina Passante, Zac Patterson, Alanna Pawlak, Richard Pearson, Anna Phillips, Benjamin Pollard, Steven Pollock, Geoff Potvin, Edward Price, Andrew Princer, Adam Q., Gina Quan, Xandria Quichocho, Katherine Rainey, Charles Ramey, II, Mario Humberto Ramírez Díaz, Laura Rios, Amy Robertson, Liana Rodelli, Miguel Rodriguez, Jeffrey Rosauer, rebecca rosenblatt, Qing Ryan, Sheila Saguear, Shima Salehi, Fatema Salmani, Amber Sammons, Alfredo Sanchez, Paulo Sarriugarte Onandia, Vashti Sawtelle, Ryan Sayer, Eleanor Sayre, Erin Scanlon, Benjamin Schermerhorn, Rachel E. Scherr, Shannon Schmoll, Jacob Sherson, Chandralekha Singh, Emily Smith, Trevor Smith, Verena Spatz, James Stanfield, Jared Stang, Bryan Stanley, Jason Starita, Martin Stein, John Stewart, Linda Strubbe, Emily

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Finally, the Editors wish to express our special thanks to the PERC Coordination Committee co-chaired by Adrienne Traxler and Bethany Wilcox, who facilitated communications and coordinated logistics among multiple parties to streamline the process for future years.

See you in Summer 2021 (COVID-willing) in Washington DC!

Steven Wolf  
Editor-in-Chief