PREFACE

The theme of the 2013 Physics Education Research Conference was "From Fearing Physics to Having Fun with Physics: Exploring the Affective Domain of Physics Learning from Multiple Perspectives." This conference highlighted research across physics, cognitive science and mathematics education that demonstrated the role of affect in science education. The conference brought together roughly 276 participants who participated in talks, poster sessions, workshops, and round table discussions.

In addition to the papers by presenters in the invited sessions, many contributed papers in this volume also address this year's theme. The remainder of the papers represent the diversity of directions within PER and help this volume fulfill its purpose of providing an annual snapshot of the field. This year's PERC Proceedings also includes an invited paper that was inadvertently not included in last year's Proceedings. Our apologies to Zahra Hazari, Robynne M. Lock, Cheryl A. P. Cass, and Carrie Beattie for this oversight.

The Editors thank this year's conference organizers Dedra Demaree, Leslie Atkins, Luke Conlin, Sissi Li, Yuhfen Lin, the American Association of Physics Teachers (AAPT), and the Physics Education Research Leadership and Organizing Council (PERLOC) for putting together a successful and well-run meeting.

This marks the first year that the Proceedings will be published on-line through comPADRE with sponsorship by the American Association of Physics Teachers. The Proceedings' online submission process for contributed papers and referee reports are supported each year by Lyle Barbato and Bruce Mason who work closely with the PERC Proceedings Editors to make improvements to the system and ensure that everything runs smoothly. We wish to thank Lyle Barbato and Bruce Mason of comPADRE.org for their excellent work and ongoing commitment to the PER community and the PERC Proceedings.

Last but not least, this volume owes its existence to the referees, who volunteer their time and expertise to help improve the quality of the papers published in the Proceedings. This year we had 137 reviewers who reviewed the 116 papers submitted to the Peer Reviewed Section.

The Editors thank:

Wendy Adams, John Aiken, Carolina Alvarado, Leslie Atkins, Novela Auparay, Charles Baily, Pablo Barniol, Shelly Belleau, Mishal Benson, Jennifer Blue, Abigail Bogdan, Eric Brewe, David Brookes, Juan Burciaga, Danny Caballero, Leonard Cerny, Jacquelyn Chini, Eleanor Close, Hunter Close, Geraldine Cochran, Vincent Coletta, Luke Conlin, Catherine Crouch, Abigail Daane, Melissa Dancy, James Day, Dedra Demaree, Seth Devore, Lin Ding, Dave Donnelly, Benjamin Dreyfus, Michael Dubson, Hilary Dwyer, Andrew Elby, Paul Emigh, Eugenia Etkina, Carol Fabby, Heidi Fencl, Noah Finkelstein, Brian Frank, Scott Franklin, Jon Gaffney, Ben Geller, William Gerace, Fred Goldberg, Aaron Grabow, Alisa Grimes, Jenaro Guisasola, Robert Haddard, Judy Hardy, Danielle Harlow, Lauren Harris, Ryan Hazelton, Andrew Heckler, Kenneth Heller, Charles Henderson, Paula Heron, Brant Hinrichs, Natasha

Holmes, Leon Hsu, Dehui Hu, Michi Ishimoto, Kim Jaxon, Darrick Jones, Dyan Jones, Raina Khatri, Kathleen Koenig, Patrick Kohl, Antje Kohnle, Laird Kramer, H. Vince Kuo, Heather Lewandowski, Sissi Li, Shih-Yin Lin, Robb Lindgren, Ashley Lindow, Clarissa Lovegren, Michael Loverude, Florin Lung, Andrew Macdonald, Jonathan Mahadeo, Alexandru Maries, Emily Marshman, Andrew Mason, Timothy McCaskey, Jignesh Mehta, David Mendez, Brendon Mikula, Katherine Misaiko, Susan Nicholson-Dykstra, Robert Niederriter, Jayson Nissen, Christopher Oakley, Valerie Otero, Gina Passante, Jeff Phillips, Noah Podolefsky, Steven Pollock, Wendell Potter, Geoff Potvin, Gina Quan, Saif Rayyan, Carina Rebello, N. Sanjay Rebello, AJ Richards, Jen Richards, Amy Robertson, Amy Rouinfar, Homeyra Sadaghiani, Natan Samuels, Rachel Scherr, Catherine Schiber, Tyler Scott, Daniel Seaton, Lane Seeley, Peters Shaffer, Grant Sherer, Chandralekha Singh, Benjamin Spike, Antoinette Stone, Enrique Suarez, Adrienne Traxler, Emily Van Zee, Stamatis Vokos, Joshua Von Korff, DJ Wagner, Daniel White, Elizabeth Whitmore, Craig Wiegert, Bethany Wilcox, Rosemary Wulf, Qing Xu, Daniel Young, Genaro Zavala, Changgong Zhou, Robert Zisk, and Justyna Zwolak.

See you next summer in Minneapolis!

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