Preface

The theme of the 2023 PERC was: *Working together to Strengthen the PER Community of Practice.*

The 2023 Physics Education Research Conference (PERC) revisited the first PER community gathering that occurred nearly 30 years ago where a true PER community of advisors, professors, and students gathered. PERC 2023 conference was an invitation for the PER community to explore emergent themes in PER as a scholarly endeavor and as a research community. This theme was designed to encourage the continued formation of a community of practice as PER community evolves. In addition to the papers addressing this year’s theme, the remainder of the papers represent the diversity of current research within PER and help this volume fulfill its purpose of providing an annual snapshot of the field.

This year, the PERC took place in an in-person format. It is impossible to overstate the efforts of the organizing team, which included Rebecca Lindell, Liam McDermott, Jason Morphew, Mary Urquhart, and Lyle Barbato, who worked to create a meaningful conference experience and inclusive environment for all participants. 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).

Plenary speakers included Ximena C. Cid, Kim Coble, Nekeisha Johnson, W. Brian Lane, Kris Lui, Jose P. Mestre, Mary Urquhart, Dean A. Zollman. The conference also hosted a variety of workshops, symposia, collaboration spaces, dine-n-discover events, in addition to the PERC poster sessions.

The 2022 PERC Proceedings process would not be possible without the ongoing support of Lyle Barbato, who works closely with the editors each year. The continued sponsorship of AAPT and open-access publishing through ComPADRE have allowed the PERC Proceedings to improve each year, including maintaining the double-confidential review process and continue the development of a robust and dedicated online platform for proceedings management.

However, it is the referees who volunteer their time and expertise each year who are critical to the PERC Proceedings success. The editors sincerely thank all of those who participated in the review process and strengthen our research community: Fatima Abdurrahman, Adrian Adams, Anne Alesandrin, Jonathan Alfson, Josephine Allen, Winter Allen, Saalih Allie, Carolina Alvarado, Katherine Crimmins, Jared Arnell, Jennifer Avena, Peter Bagdovitz, Roshni Bano, Lauren Barth-Cohen, Lauren Bauman, Scott Bonham, Tea Boone, Victoria Borish, Andrew Boudreaux, Sarah Braden, Amir Bralin, Bill Bridges, Mary Brundage, Eric Burkholder, Kevin Cantlin, Stephanie Chasteen, Ravishankar Chatta Subramaniam, Jacquelyn Chini, Eleanor Close,
By continuing to honor the PERC Proceedings tradition of welcoming new members in the field to publish their research alongside known scholars, it is our hope that the Proceedings can contribute in some small way to the goal of strengthening and improving the community of practices of PER for the years to come.

Qing X. Ryan