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**Anne-Sophie Poulin-Girard
Joseph A. Shaw**
Editors

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Session Chairs

- 1 *Higher Education: Education through Publication and Research*
Qiyin Fang, McMaster University (Canada)
- 2 *New Technologies: Training Using Specialized Software and Platforms as Practical Tools*
Simon Rainville, Université Laval (Canada)
- 3 *Higher Education: Curriculum Development and Improvement*
Aaron Danner, National University of Singapore (Singapore)
- 4 *Challenges: Optics and Photonics Education in Diverse, Remote and or Underprivileged Communities*
Dirk Fabian, SPIE
- 5 *Challenges: Softskills: Enhancing Technical Training*
Dirk Fabian, SPIE
- 6 *New Technologies: AR/VR for Optics and Photonics Education*
Joseph A. Shaw, Montana State University (United States)
- 7 *New Technologies: Online Classroom and Remote Learning*
Guillermo E. Sanchez-Guerrero, Universidad Autónoma de Nuevo León (Mexico)
- 8 *Higher Education: Laboratory Curriculum and Experiments for Hands-On Training*
Suzie Dufour, INO (Canada)
Yukitoshi Otani, CORE, Utsunomiya University (Japan)
- 9 *K12 and Outreach: Hands-On Experiments and Demonstrations for Young Audiences*
Mike McKee, CREOL, The College of Optics and Photonics (United States)

- 10 *Industry: Optics and Photonics Curriculum and Programs*
Matthew Posner, Excelitas (Canada)
- 11 *Art and Nature: Optics in Nature and in Our Surroundings*
Perla Maria Viera Gonzalez, Universidad Autónoma de Nuevo León (Mexico)
- 12 *Art and Nature: Art and Photonics*
Perla Maria Viera Gonzalez, Universidad Autónoma de Nuevo León (Mexico)
- 13 *Industry: Industry and Academia Interaction in Education*
Jessica DeGroote Nelson, Optimax, Ltd. (United States)
- 14 *Industry: In-company Training and Internships*
Gabrielle Thériault, Gentec-EO (Canada)
- 15 *Higher Education: Development of Multidisciplinary Training Programs*
María J. Yzuel, Universitat Autònoma de Barcelona (Spain)
- 16 *Pedagogical Approaches: Problem-, Project- and Case-Based Learning*
Nicholas M. Massa, Springfield Technical Community College (United States)
- 17 *K12 and Outreach: Program Evaluation*
Anne-Sophie Poulin-Girard, Université Laval (Canada)
- 18 *Higher Education: Light Sources and Radiometry in Education*
Michael Vollmer, Technische Hochschule Brandenburg (Germany)
- 19 *Pedagogical Approaches: Novel Models and Methods for Photonics Education*
Rhys Adams, Vanier College (Canada)
- 20 *K12 and Outreach: K12 Education and Outreach Initiatives*
Cristina E. Solano, Centro de Investigaciones en Óptica (Mexico)

Introduction

The 15th edition of the Conference on Education and Training in Optics and Photonics took place in Québec, Canada, 21–24 May 2019. Collocated with Photonics North, ETOP 2019 welcomed participants from 23 countries around the world and various professional backgrounds.

Since the first meeting in 1988 in San Diego, California (United States), ETOP has traveled around the world, bringing together leading experts and educators around the topic of high-quality training in optics and photonics at all levels. Along the way, ETOP has integrated the efforts of four professional organizations around a common goal: advancing and sharing knowledge in education in our field.

Light and light-based technologies touch the daily lives of everybody and are central to the future development of the global society. Innovation in education is essential to solving the grand challenges faced by the optics and photonics community. We need leading education programs at all levels and relevant continuous training for the workforce, to be welcoming and inclusive with the future and current professionals, and to reach out to the young people and the general public to meet the growing demands of research, science and industry.

This year's technical program was rich and diverse with the community's contribution. It was divided into five tracks discussing Higher Education; the use of New Technologies, Industry training, Pedagogical Methods, and K-12 and Outreach. Two special sessions addressed the special topics of Challenges in Optics, and Optics and Nature.

We look forward to the next edition of ETOP and hope to see you again in 2021.

Anne-Sophie Poulin-Girard
Joseph A. Shaw

