



Comments from the Chair

I write to you in my final month as Chair of ISEA. It has been an honour serving in this role, and I've enjoyed working this year with the many dedicated and enthusiastic members of the Board. Their hard work made my job much easier. With help from everyone, 2023 has been a tremendous year for both the growth of ISEA, and the promotion of Statistical Engineering globally. In this newsletter I've highlighted several important news items, events, and initiatives for your perusal.

As one-year ends and another begins, it is time to welcome new friends and say thank you and goodbye to some old ones. As I transition out of the role as Chair, I will be replaced by Diego Kuonen, CEO and CAO of Statoo Consulting and Professor of Data Science at the University of Geneva, Switzerland. ISEA is in good hands under his watch, and I'm excited to see where he takes us in the next year. We also welcome Michael Joner (Director of Statistics at Procter & Gamble) to the Board. We thank him for his enthusiasm; we're excited to work with Michael and look forward to his fresh perspectives. 2023 also marks the end of Peter Parker's time on the ISEA Board. Pete served as Chair Elect (2021), Chair (2022), and Past Chair (2023) and he was instrumental to the formation of ISEA even before this. We thank him for his years of service. ISEA would not be what it is without his dedication and hard work.

And finally, thanks to you, the members of ISEA. Your enthusiasm and engagement are what keep us going. We hope you found value in your ISEA membership in 2023, and we look forward to adding more value in 2024.

All the best to you and yours during the holiday season. Here's to a happy, healthy, productive, and prosperous 2024!

Nathaniel Stevens, ISEA Chair (2023)

Recapping Exciting News, Events, and Initiatives

- **1000 Members:** In 2023, ISEA saw its membership grow past 1000 members! This is an incredible milestone that we are very excited about and very proud of. We thank you for your passion and enthusiasm for this cause; it's encouraging to know that so many people around the world are interested and excited about the Statistical Engineering discipline. We look forward to continuing this growth in 2024 and beyond.
- **ASQ Søren Bisgaard Award:** The ASQ Søren Bisgaard Award recognizes the *Quality Engineering* paper with "the greatest potential for advancing the practice of quality improvement". In 2023 this prestigious award was given to Roger Hoerl, Diego Kuonen, and Thomas Redman for their paper titled "[Problem framing: Essential to successful statistical engineering applications](#)" which appeared in Issue 4, Volume 34 of *Quality Engineering*. This prestigious recognition of research in Statistical Engineering marks an important step forward in advancing the discipline. Congratulations Roger, Diego, and Thomas! And thank you for your significant and impactful work!



- **Website:** In 2023 ISEA launched a new and improved version of its website! Thanks to your input and the hard work of Inez Zwetsloot, Valeria Quevedo, and Cassandra Thomas, the website is now more functional, professional, and aesthetically pleasing. We will continue to iterate and improve the website throughout 2024 (so feel free to provide feedback), but we made huge gains this year, and I want to thank everyone involved.
- **Webinars:** In 2023 ISEA held 6 webinars throughout the year, featuring international speakers from both industry and academia, engaging hundreds of viewers. A summary of these webinars is included separately below. Thank you to Inez Zwetsloot for spearheading the organization of the webinars this year.
- **Conferences:** In 2023 ISEA was involved in 5 different conferences in 3 different countries, organizing invited sessions and panel discussions to help broadly promote ISEA and the discipline of Statistical Engineering around the world. A summary of these conferences is included separately below. Thanks to all organizers, speakers, and panelists for your hard work in making these sessions a great success.

Recapping the Webinars in 2023

Date	Speaker	Title
January 18, 2023	Inez Zwetsloot, University of Amsterdam	Escalator Health Condition and Remaining Useful Life Modeling
March 29, 2023	Caleb King, JMP Statistical Discovery	The Statistical Engineering Framework: What It Is and How It Works in Practice
June 8, 2023	Susan O Schall, SOS Consulting	Statistical Engineering Synergies with Established Engineering Disciplines
September 21, 2023	Maria Lanzerath, W.L. Gore & Associates	A case study of a mixed-level OMARS design
October 24, 2023	Roger Hoerl, Union College	Problem Framing: Essential to Successful Statistical Engineering Applications
December 7, 2023	Andressa Siroky and Carla Vivacqua, University of Rio Grande do Norte	Statistical Engineering: An Experience from Brazil

Note that if you want to watch these or *any* of our past webinars, you can do so on the [ISEA YouTube Channel](#).

Recapping ISEA's Presence at 2023 Conferences



The [2023 DATAWorks Defense and Aerospace Test and Analysis Workshop](#) happened April 25-27, 2023 in Alexandria, Virginia, USA. Peter Parker (NASA Langley Research Center) organized the following Statistical Engineering session at this conference:

Statistical Engineering Case Study in NASA's Quesst Mission Exploring Commercial Supersonic Flight

- *An Overview of the NASA Quesst Community Test Campaign with the X-59 Aircraft*
Jonathan Rathsam, NASA
- *Dose-Response Data Considerations for the NASA Quesst Community Test Campaign*
Aaron B. Vaughn, NASA
- *Infusing Statistical Thinking into the NASA Quesst Community Test Campaign*
Nathan B. Cruze, NASA



The [2023 United States Conference on Teaching Statistics \(USCOTS\)](#) (June 1-3) featured a special session on June 2 honouring Stu Hunter's 100th Birthday. Details about the session are included below.

An Homage to Educator Par Excellence, L. Stuart Hunter, on the Occasion of His One Hundredth Birthday

This session featured short presentations by five statisticians (Dick DeVeaux, Doug Montgomery, Roger Hoerl, Ron Snee, Bradley Jones) about their experiences with Stu Hunter. Special emphasis was placed on Stu's work as an educator. Stu made a virtual cameo appearance. Audience members also provided their own recollections of Stu and his influence on their lives.



The [2023 Joint Statistical Meetings \(JSM\)](#) happened August 5-10, 2023 in Toronto, Ontario, Canada. Nathaniel Stevens (University of Waterloo) organized a Statistical Engineering panel discussion that brought to life a series of discussion papers published in *Quality Engineering's* 2022 [Statistical Engineering Special Issue](#). The session was held on August 7 from 2:00-4:00pm. The details are below.

The Past, Present, and Future of Statistical Engineering

The panel discussion brings together a group of leading applied statisticians from academia, industry, and government to discuss the important movement of Statistical Engineering (SE). Through a series of planned questions from the moderator, and spontaneous questions from the audience, the panel will discuss the unique value added by SE, notable advances, current obstacles, challenges, and opportunities as the discipline continues to grow. The goal of the panel is to inspire statisticians to consider their own possible role in advancing the adoption of Statistical Engineering to solve important problems with high quality solutions.

Panelists: Peter Parker (NASA), L. Allison Jones-Farmer (Miami University), Stefan Steiner (University of Waterloo), William Guthrie (National Institute of Standards & Technology) Angela Patterson (GE Aviation & Virginia Tech)

Moderator: David Edwards (Virginia Commonwealth University)



The [ENBIS 2023 Conference](#) happened September 10-14, 2023 in Valencia, Spain. Geoff Vining (Virginia Tech) organized a session on Statistical Engineering. Session details are included below.

Statistical Engineering Invited Session

- *Analytical Problem Solving based on Causal, Correlational, and Deductive Models*
Jeroen de Mast, University of Amsterdam
- *Statistical Engineering: Strategy vs. Tactics*
Geoff Vining, Virginia Tech
- *Teaching and Applying Statistical Engineering in Brazil*
Andressa Siroky, University of Rio Grande do Norte



The [2023 Fall Technical Conference \(FTC\)](#) happened October 4-6, 2023 in Raleigh, North Carolina, USA. The theme of the *Quality Engineering* invited session on Friday October 6 was Statistical Engineering, and it featured two exciting talks:

- *Problem Framing: Essential to Successful Statistical Engineering Applications*
Roger Hoerl, Union College
- *Testing and Prediction Profiler with Disallowed Combinations—A Statistical Engineering Case Study*
Yeng Saanchi, North Carolina State University