EuroVis 202224th Eurographics Conference on Visualization 2022

Rome, Italy June 13 – 17, 2022

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Preface

EuroVis 2022, the Eurographics / IEEE VGTC Conference on Visualization was held in Rome, Italy from June 12 to June 17, 2022. We were happy to bring the international data visualization community back together at the conference in Rome, after a long pandemic-related hiatus in in-person meetings.

As last year, the EuroVis proceedings will be again published under a Gold Open Access model that makes the papers available to everyone.

EuroVis has been an annual event since its inception in 1990. Over the years, the venue has changed names. It was originally started as the Eurographics Workshop on Visualization in Scientific Computing, and was called VisSym between 1999 and 2005. Since 2005, the conference has been called the Eurographics / IEEE VGTC Conference on Visualization, or EuroVis for short. This change of name is fitting: the conference broadly covers the field of data visualization. Topics include visualization techniques for spatial data, such as volumetric, tensor, and vector field datasets, and for non-spatial data, such as graphs, text, and high-dimensional datasets. EuroVis also covers the theory of visualization, hardware acceleration, large datasets, perception, interaction, user studies, information visualization, visual analytics, and many application areas of visualization. EuroVis is a global event. While it has always been held in Europe, the community comes from around the globe. This year, the Full Papers International Program Committee consisted of 95 members representing the global visualization research community, from North America, South Asia, East Asia, and Europe. The papers are similarly from around the world.

The full-papers proceedings for EuroVis are published as a special issue of the Computer Graphics Forum journal. In 2022 the process of selecting papers for the proceedings took place according to plan. 178 complete manuscripts were submitted in early December 2021, a slight increase from the year before. Authors were given the option of anonymous submission, although International Program Committee members have always been able to see the author identities in the submission system. The conference review process this year used again a structured review form, and a formal rebuttal stage. During the first review cycle, each paper received between four and five reviews, two from members of the International Program Committee (IPC) and between two and three reviews from external reviewers selected by the IPC members. The four to five reviewers held an online discussion. During the discussion process, the Paper Chairs invited rebuttals from authors, which were made available to all reviewers of each paper. The reviewers for each paper then recommended conditional acceptance or rejection to the Full Papers Program Chairs. Based on the recommendations and responses, the Papers Chairs selected one of three outcomes for each paper: conditional acceptance, a recommendation for fast-track consideration in Computer Graphics Forum, or rejection. Papers conditionally accepted in the first round were revised by the authors and subject to a second round of review. After the second round of review, all 44 papers were accepted, yielding an acceptance rate of 24.72%. Ten other papers were invited to a "fast-track" process to undergo revision for consideration in a future issue of Computer Graphics Forum.

The EuroVis conference recognizes the best papers submitted to the conference through Best Paper Awards. This year, the Full Paper Chairs nominated five manuscripts based on reviews, the review scores, the reviewer discussion, and recommendations from the IPC and external reviewers. Then a Best Paper Committee formed of non-IPC members Nathalie Henry-Riche, David Laidlaw and Bettina Speckmann made the final selection of a Best Paper and two equal Honorable Mentions. Bettina Speckmann did not participate in the discussion and ranking of one of the papers who went on to win an Honorable Mention, due to a late conflict of interest with one of its authors.

The Best Paper Award this year goes to "Of Course it's Political! A Critical Inquiry into Underemphasized Dimensions in Civic Text Visualization" by Eric P. S. Baumer, Mahmood Jasim, Ali Sarvghad, and Narges Mahyar. The Best Paper Committee stated: "We recognized the piece as thought-provoking for the community and likely to impact the next generation of visualization research. This paper will encourage a deeper reflection on the design

decisions and their potential ramification for decision makers as well as likely transform the metrics of evaluation for data-driven storytelling and communication."

One equal Honorable Mention is awarded to "Rich Screen Reader Experiences for Accessible Data Visualization contact" by Jonathan Zong, Crystal Lee, Alan Lundgard, JiWoong Jang, Daniel Hajas, and Arvind Satyanarayan. The Best Paper Committee stated: "This paper tackles a timely and important problem, providing a structured approach to accessible visualization and involving users from the co-design phase to the evaluation of high-fidelity prototypes. Guidelines from this work will impact a large range of practitioners crafting visualization for a vision-impaired audience."

Another equal Honorable Mention is awarded to "Visual Analytics of Contact Tracing Policy Simulations During an Emergency Response" by Max Sondag, Cagatay Turkay, Kai Xu, Louise Matthews, Sibylle Mohr, and Daniel Archambault. We cite again the Best Paper Committee: "This paper is an exemplary design study in the rigor of its approach as well as in the quality of its contribution to tree visualization. This paper provides a simple and elegant solution to the challenging problem of representing disease transmission data."

In recognition of the importance of the review process, this year the Full Paper Chairs again recognized the best EuroVis full paper reviewers, through a Best Reviewer Award and two Honorable Reviewer Awards. The Full Paper Chairs analyzed all the reviews submitted to the Full Papers program (4-5 reviews per submission, 171 submissions entered in the review process) as well as the reviewer discussion for each submission. They then compiled a preliminary list of 23 outstanding reviewers, using a minimum of three reviewing samples available for each nominee, and using as criteria the quality of those reviews, and the reviewer participation into paper discussions. The Chairs also considered nominations entered by the reviewer pool. Each Chair did not nominate any of their conflicts of interest. After discussion, the Chairs selected by consensus a subset of five reviewers, then anonymized their corresponding review samples. A Best Reviewer Committee formed by Tatiana von Landesberger (a EuroVis'21 Papers Chair) and Cagatay Turkay (the EuroVis'21 Best Reviewer Award recipient) reviewed the anonymized samples, discussed the nominations, and selected a Best Reviewer and two Honorable Reviewers. The Best Reviewer award was made to IPC member Kenneth Moreland, in recognition of his high quality, timely, detailed, balanced and thorough reviews, and thoughtful contributions to the reviewer discussion. The two Honorable Reviewer awards were made to IPC members Kate Isaacs and Tamara Munzner, in recognition of their thoughtful, specific, detailed, and constructive reviews, and of their balanced and timely discussion contributions.

We would like to thank everyone who has made the event possible. We thank the authors of all submissions for providing us with such a broad range of exciting work to select from. We thank the International Program Committee for their work in identifying external reviewers and guiding the review process. We thank the reviewers for their work in selecting the papers and providing feedback to authors. We thank the chairs of the other conference tracks for their help in making EuroVis such a successful event: Short Papers chairs Marco Agus, Wolfgang Aigner, and Thomas Höllt; STAR chairs Stefan Bruckner, Cagatay Turkay, and Katerina Vrotsou; the Posters Chairs Michael Krone, Simone Lenti, and Johanna Schmidt; and all the chairs of the co-located workshops. We thank Stefanie Behnke for her assistance in preparing the publications, and James Stewart for his swift assistance with the review software system. We thank the EuroVis steering committee for giving the Papers Chairs flexibility to implement experimental changes to the papers review process. And we thank the General Chairs, Giuseppe Santucci, Tiziana Catarci and Marco Schaerf, for their efforts in creating the conference and re-imagining it as the world situation required.

Technical conferences, such as EuroVis, serve an important role in bringing the research community together to share ideas. We value the opportunity to share ideas and collegiality.

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Invited Talk: Keynote

The Art and Science of Data Visualization

Moritz Stefaner

Abstract

As an independent "Truth & Beauty Operator", Moritz Stefaner is constantly chasing the perfect shape for information: how can we create expressive, intriguing, and elegant data experiences? Exploring the art and the science of successful data visualization alike, he will discuss his learnings from pushing the boundaries of the field — from interactive experiences over data sculptures to even using food for representing data.

Short Biography

As a self-employed "Truth and Beauty Operator", Moritz Stefaner keeps chasing the perfect shape for information. With a background in Cognitive Science and Interface Design, his work beautifully balances analytical and aesthetic aspects in mapping complex phenomena to support data—driven decision making. He is the record winner of the Kantar Information is Beautiful awards and his work has been exhibited at Venice Biennale of Architecture, SIG-GRAPH, Max Planck Science Gallery, Fondation EDF, and Ars Electronica. In the past, Moritz has helped clients like the OECD, Google News Initiative, Salesforce, World Economic Forum, Deutsche Bahn and the Max Planck Research Society to find insights and beauty in large data sets. As a writer, co-host of the Data Stories podcast, and sought-after keynote speaker and workshop facilitator, Moritz Stefaner continues to excite more and more people about the magic that can emerge when art and science connect.

Invited Talk: Capstone

Designing for Tuesday

Angela Morelli

Abstract

A story about information design and impact.

Angela will reflect on her journey of co-designing data visualizations in science, where visual information can help disentangle complex issues, resolve challenges, help make important decisions and, ultimately, inspire change.

Short Biography

Angela Morelli is an award-winning Italian information designer based in Norway. She is the CEO and co-founder of InfoDesignLab. From climate change to health, she has worked with a wide range of scientific organisations and professionals including the Intergovernmental Panel on Climate Change (IPCC), the European Environment Agency, the Norwegian Institute of Public Health, the Center for Climate Research in Norway and the World Meteorological Organization. Her goal is to co-design engaging solutions that empower audiences and support informed decision-making. Angela gained her MA in Information Design from Central Saint Martins in London, having previously obtained a BA degree in Engineering from Politecnico di Milano and an MA in Industrial Design. She is an acclaimed international speaker. She was awarded the Il Monito del Giardino Award in 2013 along with philanthropist Paul Polak, primatologist Jane Goodall, water scientist Tony Allan and other individuals committed to defending planetary ecosystems. Angela was named a 2012 Young Global Leader by the World Economic Forum thanks to her commitment in communicating the science of Water Footprint through information design and data visualisation.