Soumya Dutta

Contact Information

Information Sciences Group (CCS-3)

Los Alamos National Laboratory

Los Alamos, USA

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Research Interests

- Data Analytics & Visualization
- Machine Learning for Visual Computing
- Statistical Techniques for Big Data
- Data Science
- High Performance Computing

Education

Doctor of Philosophy (Ph.D.) & Master of Science (M.S.)

2011 - 2018

- @ The Ohio State University, Ohio, USA
 - Computer Science and Engineering (CSE)

Bachelor of Technology (B.Tech.)

2005 - 2009

- @ West Bengal University of Technology, West Bengal, India
 - Electronics and Communication Engineering (ECE)

Research Experience

Data Science at Scale Team, Los Alamos National Laboratory, USA

Scientist-II

July 2019 - Present

Data Science at Scale Team, Los Alamos National Laboratory, USA

Postdoctoral Research Associate

June 2018 - July 2019

Graphics and Visualization Study (Gravity) Lab, The Ohio State University, USA

Graduate Research Associate

July 2013 - May 2018

Applied Computer Science (CCS-7), Los Alamos National Laboratory, USA

Graduate Research Associate May - Jul. 2015, May - Aug. 2016, May - Aug. 2017

AEIE Department, Heritage Institute of Technology (HIT), India

Researcher 2010 - 2011

CVPR Unit, Indian Statistical Institute (ISI), India

Undergraduate Student Researcher

Dec. 2008 - Sept. 2009

Honors & Awards

• Best Reviewer, Honorary Mention Award for providing insightful reviews for the journal IEEE Transactions on Visualization & Computer Graphics (TVCG) for the year 2021.

- Best Paper Award at In Situ Infrastructures for Enabling Extreme-scale Analysis and Visualization (ISAV) 2021, co-located with Supercomputing (SC) 2021.
- LAAP Award for exceptional dedication and leadership of the Data Science at Scale Summer School program at Los Alamos National Laboratory, 2021.
- Best Paper Award in Topological Methods in Data Analysis and Visualization (TopoInVis) 2019.
- Best Paper Award in In Situ Infrastructures for Enabling Extreme-scale Analysis and Visualization (ISAV) 2018, co-located with Supercomputing (SC) 2018.
- Best Poster Award in 12th Annual CSE Student Poster Exhibition 2018, The Ohio State University.
- Nominated for Ohio State Presidential Fellowship, 2017, from CSE Department. This is the most prestigious and an extremely competitive fellowship given by the graduate school at the Ohio State University.
- Best Poster Award in 11th Annual CSE Student Poster Exhibition 2017, The Ohio State University.
- Best Paper, Honorable Mention Award in IEEE Visualization (IEEEVIS) 2016. IEEE Visualization is the premier and largest visualization conference in the world.

Book Chapters

- [4]. Soumya Dutta, Subhashis Hazarika, and Han-Wei Shen, In Situ Statistical Distribution-based Data Summarization and Visual Analysis, In Situ Visualization for Computational Science, Springer International Publishing, 2022, https://link.springer.com/chapter/10.1007/978-3-030-81627-8_4.
- [3]. Ayan Biswas, **Soumya Dutta**, Terece Turton, and James Paul Ahrens, *Sampling for Scientific Data Analysis and Reduction*, **In Situ Visualization for Computational Science**, Springer International Publishing, 2022, https://link.springer.com/chapter/10.1007/978-3-030-81627-8_2.
- [2]. David Rogers, **Soumya Dutta**, Divya Banesh, Terece L. Turton, Ethan Stam, and James Ahrens, *In situ Solutions with CinemaScience*, **In Situ Visualization for Computational Science**, Springer International Publishing, 2022, https://link.springer.com/chapter/10.1007/978-3-030-81627-8_14.
- [1] Roxana Bujack, **Soumya Dutta**, Duan Zhang, Tobias Günther, *Objective Finite-Time Flow Topology from Flowmap Expansion and Contraction*, **Topological Methods in Data Analysis and Visualization VI, Springer**, 2021, https://link.springer.com/chapter/10.1007/978-3-030-83500-2-7.

Journal Publications

- [14] Soumya Dutta, Terece L. Turton, David Rogers, Jordan M. Musser, James Ahrens, and Ann S. Almgren, *In Situ Feature Analysis for Large-scale Multiphase Flow Simulations*, **Journal of Computational Science (Elsivier)**, 2022, DOI: https://doi.org/10.1016/j.jocs.2022.101773. [Early Access].
- [13] Humayra Tasnim, **Soumya Dutta**, Terece L. Turton, David Rogers, and Melanie E. Moses, Information-theoretic Exploration of Multivariate Time-Varying Image Databases, **IEEE Computing in Science & Engineering (IEEE CiSE)**, 2022, DOI: 10.1109/MCSE.2022.3188291. [Early Access].
- [12] Jiayi Xu, **Soumya Dutta**, Wenbin He, Joachim Moortgat, and Han-Wei Shen, *Geometry-Driven Detection, Tracking and Visual Analysis of Viscous and Gravitational Fingers*, **IEEE Transactions on Visualization and Computer Graphics (TVCG)**, 2022, Volume: 28, Issue 3, pp. 1514 1528, DOI: 10.1109/TVCG.2020.3017568.

- [11] Ayan Biswas, **Soumya Dutta**, Earl Lawrence, John M. Patchett, Jon C. Calhoun, and James Ahrens, *Probabilistic Data-Driven Sampling via Multi-Criteria Importance Analysis*, **IEEE Transactions on Visualization and Computer Graphics (TVCG)**, 2021, Volume 27, Issue 12, pp. 4439-4454, DOI: 10.1109/TVCG.2020.3006426.
- [10] Soumya Dutta, Terece L. Turton, and James Ahrens, A Confidence-guided Technique for Tracking Time-varying Features, IEEE Computing in Science & Engineering (IEEE CiSE), 2021, Volume 23, Issue 2, pp. 84-92, DOI: 10.1109/MCSE.2020.3047979.
- [9] Ayan Biswas, James Ahrens, **Soumya Dutta**, Jordan Musser, Ann Almgren, and Terece Turton, Feature Analysis, Tracking, and Data Reduction: An Application to Multiphase Reactor Simulation MFiX-Exa for In-Situ Use Case, **IEEE Computing in Science & Engineering (IEEE CiSE)**, 2021, Volume 23, Issue 1, pp. 75-82, DOI: 10.1109/MCSE.2020.3016927.
- [8] Hank Childs, Sean D. Ahern, James Ahrens, Andrew C. Bauer, Janine Bennett, E. Wes Bethel, Peer-Timo Bremer, Eric Brugger, Joseph Cottam, Matthieu Dorier, Soumya Dutta, Jean M. Favre, Thomas Fogal, Steffen Frey, Christoph Garth, Berk Geveci, William F. Godoy, Charles D. Hansen, Cyrus Harrison, Bernd Hentschel, Joseph Insley, Chris R. Johnson, Scott Klasky, Aaron Knoll, James Kress, Matthew Larsen, Jay Lofstead, Kwan-Liu Ma, Preeti Malakar, Jeremy Meredith, Kenneth Moreland, Paul Navrátil, Patrick O'Leary, Manish Parashar, Valerio Pascucci, John Patchett, Tom Peterka, Steve Petruzza, Norbert Podhorszki, David Pugmire, Michel Rasquin, Silvio Rizzi, David H. Rogers, Sudhanshu Sane, Franz Sauer, Robert Sisneros, Han-Wei Shen, Will Usher, Rhonda Vickery, Venkatram Vishwanath, Ingo Wald, Ruonan Wang, Gunther H. Weber, Brad Whitlock, Matthew Wolf, Hongfeng Yu, Sean B. Ziegeler, A Terminology for In Situ Visualization and Analysis Systems, International Journal of High Performance Computing Applications (IJHPCA), 2020, Volume 34, Issue 6, pp. 676-691, https://doi.org/10.1177/1094342020935991. [Paper developing community standard.]
- [7] Soumya Dutta, Ayan Biswas, and James Ahrens, Multivariate Pointwise Information-driven Data Sampling and Visualization, MDPI Entropy (Special issue in Information Theory Application in Visualization), 2019, Volume 21, Issue 7, https://doi.org/10.3390/e21070699.
- [6] Subhashis Hazarika, **Soumya Dutta**, Han-Wei Shen, and Jen-Ping Chen, *CoDDA: A Flexible Copula-based Distribution Driven Analysis Framework for Large-Scale Multivariate Data*, **IEEE Transactions on Visualization and Computer Graphics (TVCG)**, 2019, Volume 25, Issue 1, pp. 1214-1224, DOI: 10.1109/TVCG.2018.2864801.
- [5] Subhashis Hazarika, Ayan Biswas, **Soumya Dutta**, and Han-Wei Shen, *Information Guided Exploration of Scalar Values and Isocontours in Ensemble Datasets*, **MDPI Entropy (Special issue in Information Theory Application in Visualization)**, 2018, Volume 20, Issue 7, https://doi.org/10.3390/e20070540.
- [4] Soumya Dutta, Chun-Ming Chen, Gregory Heinlein, Han-Wei Shen, and Jen-Ping Chen, In Situ Distribution Guided Analysis and Visualization of Transonic Jet Engine Simulations, IEEE Transactions on Visualization and Computer Graphics (TVCG), 2017, Volume 23, Issue 1, pp. 811-820, DOI: 10.1109/TVCG.2016.2598604. [Best Paper Honorable Mention Award at IEEEVIS 2016 (Core:A)]
- [3] Soumya Dutta and Han-Wei Shen, Distribution Driven Extraction and Tracking of Features for Time-varying Data Analysis, IEEE Transactions on Visualization and Computer Graphics (TVCG), 2016, Volume 22, Issue 1, pp. 837-846, DOI: 10.1109/TVCG.2015.2467436.
- [2] Chun-Ming Chen, Soumya Dutta, Xiaotong Liu, Gregory Heinlein, Han-Wei Shen, and Jen-

Ping Chen, Visualization and Analysis of Rotating Stall for Transonic Jet Engine Simulation, **IEEE** Transactions on Visualization and Computer Graphics (TVCG), 2016, Volume 22, Issue 1, pp. 847-856, DOI: 10.1109/TVCG.2015.2467952.

[1] Ayan Biswas, **Soumya Dutta**, Han-Wei Shen, and Jonathan Woodring, *An Information-Aware Framework for Exploring Multivariate Data Sets*, **IEEE Transactions on Visualization and Computer Graphics (TVCG)**, 2013, Volume 19, Issue 12, pp. 2683-2692, DOI: 10.1109/TVCG.2013.133.

Conference & Workshop Publications

- [18] Soumya Dutta, Dan Lipsa, Terece L. Turton, Berk Geveci, and James Ahrens, *In Situ Analysis and Visualization of Extreme-Scale Particle Simulations*, WOIV: 6th International Workshop on In Situ Visualization, 2022 (co-located with ISC High Performance Conference).
- [17] Soumya Dutta, Humayra Tasnim, Terece L. Turton, and James Ahrens, In Situ Adaptive Spatio-Temporal Data Summarization, IEEE International Conference on Big Data (IEEE Bigdata) 2021, pp. 315-321, DOI: 10.1109/BigData52589.2021.9671581.
- [16] Soumya Dutta, Natalie Klein, Li Tang, Jonathan Wolfe, Luke Van Roekel, James Benedict, Ayan Biswas, Earl Lawrence, and Nathan Urban, In Situ Climate Modeling for Analyzing Extreme Weather Events, In Situ Infrastructures for Enabling Extreme-scale Analysis and Visualization (ISAV 2021), pp. 18-23, co-located with SC 2021, https://doi.org/10.1145/3490138.3490142. [Best Paper Award]
- [15] Soumya Dutta, Riley X. Brady, Mathew E. Maltrud, Philip Wolfram, and Roxana Bujack, Leveraging Lagrangian Analysis for Discriminating Nutrient Origins, Visualization in Environmental Sciences (EnvirVis), 2019, pp. 17-24, https://doi.org/10.2312/envirvis.20191100.
- [14] Roxana Bujack, **Soumya Dutta**, Duan Zhang, Tobias Günther, *Objective Finite-Time Flow Topology from Flowmap Expansion and Contraction*, **Workshop on Topological Methods in Data Analysis and Visualization (TopolnVis)**, 2019. [Best Paper Award]
- [13] Roxana Bujack, **Soumya Dutta**, Irene Baeza Rojo, Duan Zhang, Tobias Günther, *Objective Finite-Time Saddles and their Connection to FTLE*, **EG/VGTC Conference on Visualization** (**EuroVis Short Paper**), 2019, pp. 49-53, https://doi.org/10.2312/evs.20191169.
- [12] Ayan Biswas, **Soumya Dutta**, Jesus Pulido, and James Ahrens, *In Situ Data-Driven Adaptive Sampling for Large-scale Simulation Data Summarization*, **In Situ Infrastructures for Enabling Extreme-scale Analysis and Visualization (ISAV)**, pp. 13-18, co-located with SC 2018, https://doi.org/10.1145/3281464.3281467.
- [11] **Soumya Dutta**, Han-Wei Shen, and Jen-Ping Chen, In Situ Prediction Driven Feature Analysis in Jet Engine Simulations, **IEEE Pacific Visualization Symposium** (IEEE PacificVis), 2018, pp. 66-75, DOI: 10.1109/PacificVis.2018.00017.
- [10] Matthew Larsen, Amy Woods, Nicole Marsaglia, Ayan Biswas, **Soumya Dutta**, Cyrus Harrison, and Hank Childs, *A Flexible System For In Situ Triggers*, **In Situ Infrastructures for Enabling Extreme-scale Analysis and Visualization (ISAV 2018)**, pp. 1-6, co-located with SC 2018, https://doi.org/10.1145/3281464.3281468. [Best Paper Award]
- [9] Tzu-Hsuan Wei, **Soumya Dutta**, and Han-Wei Shen, *Information Guided Data Sampling and Recovery using Bitmap Indexing*, **IEEE Pacific Visualization Symposium** (IEEE PacificVis), 2018, pp. 56-65, DOI: 10.1109/PacificVis.2018.00016.
- [8] Soumya Dutta, Xiaotong Liu, Ayan Biswas, Han-Wei Shen, and Jen-Ping Chen, Pointwise In-

- formation Guided Visual Analysis of Time-varying Multi-fields, SA'17, SIGGRAPH Asia Symposium on Visualization, 2017, pp. 1-8, https://doi.org/10.1145/3139295.3139298.
- [7] Soumya Dutta, Jonathan Woodring, Han-Wei Shen, Jen-Ping Chen, and James Ahrens, Homogeneity Guided Probabilistic Data Summaries for Analysis and Visualization of Large-Scale Data Sets, IEEE Pacific Visualization Symposium (IEEE PacificVis), 2017, 111-120, DOI: 10.1109/PACIFICVIS.2017.8031585.
- [6] Gregory Heinlein, Jen-Ping Chen, Chun-Ming Chen, **Soumya Dutta**, and Han-Wei Shen, *Statistical Anomaly Based Study of Rotating Stall in a Transonic Axial Compressor Stage*, **Turbomachinery Technical Conference & Exposition** (ASME Turbo Expo, GT 2017), https://doi.org/10.1115/GT2017-64685.
- [5] Subhashis Hazarika, **Soumya Dutta**, Han-Wei Shen, Visualizing the Variations of Ensemble of Isosurfaces, **IEEE Pacific Visualization Symposium** (IEEE PacificVis Notes), 2016, 209-213, DOI: 10.1109/PACIFICVIS.2016.7465272.
- [4] Soumya Dutta and Madhurima Chattopadhyay, A change detection algorithm for medical cell images, International Conference on Scientific Paradigm Shift in Information Technology and Management (SPSITM 2011), 2011, 524-527.
- [3] Soumya Dutta and Bidyut B. Chaudhuri, A Color Edge Detection Algorithm in RGB Color Space, Advances in Recent Technologies in Communication and Computing (ARTCOM 2009), 2009, 337-340, DOI: 10.1109/ARTCom.2009.72.
- [2] Soumya Dutta and Bidyut B. Chaudhuri, *Homogeneous region based color image segmentation*, The World Congress on Engineering and Computer Science (WCECS 2009), 2009, vol 2, 1301-1305.
- [1] Soumya Dutta and Bidyut B. Chaudhuri, A Statistics and Local Homogeneity Based Color Edge Detection Algorithm, Advances in Recent Technologies in Communication and Computing (ARTCOM 2009), 2009, 546-548, DOI: 10.1109/ARTCom.2009.71.

Peer-reviewed White Papers

- [3] Soumya Dutta, Divya Banesh, Li-Ta Lo, Roxana Bujack, and David Rogers, *Model-based Visual Analytics of Big Data: Challenges and Opportunities*, DOE ASCR Workshop on Visualization for Scientific Discovery, Decision-Making, & Communication, January 18-20, 2022.
- [2] Roxana Bujack, Divya Banesh, **Soumya Dutta**, and Li-Ta Lo, *Vector Field Segmentation for Data Analysis*, DOE ASCR Workshop on Visualization for Scientific Discovery, Decision-Making, & Communication, January 18-20, 2022.
- [1] Li-Ta Lo, Roxana Bujack, **Soumya Dutta**, and Divya Banesh, *Sparsity for Extreme Scale Visualization and Data Analysis*, DOE ASCR Workshop on Visualization for Scientific Discovery, Decision-Making, & Communication, January 18-20, 2022.

Tech. Reports/ Posters

- [5] Jiayi Xu, Soumya Dutta, Wenbin He, Joachim Moortgat, and Han-Wei Shen, Geometry-Driven Detection, Tracking and Visual Analysis of Viscous and Gravitational Fingers, 15th Annual CSE Student Research Poster Exhibition, The Ohio State University, 2021. [Poster]
- [4] Soumya Dutta, Han-Wei Shen, and Jen-Ping Chen, In Situ Prediction Driven Feature Analysis in Jet Engine Simulations, 12th Annual CSE Student Research Poster Exhibition, The Ohio State University, 2018. [Poster] [Best Poster Award]

- [3] Soumya Dutta, Chun-Ming Chen, Gregory Heinlein, Han-Wei Shen, and Jen-Ping Chen, In Situ Distribution Guided Analysis and Visualization of Transonic Jet Engine Simulations, 11th Annual CSE Student Research Poster Exhibition, The Ohio State University, 2017. [Poster] [Best Poster Award]
- [2] Garrett A. Aldrich, Soumya Dutta, and Jonathan Woodring, OpenMC In Situ Source Convergence Detection, Los Alamos National Laboratory (LA-UR-16-23217), 2016. [Tech. Report]
- [1] Soumya Dutta, Xiaotong Liu, Ayan Biswas, Han-Wei Shen, Yifan Hu, James Giuliani, and Jen-Ping Chen, Pointwise Information Analysis for Multivariate Time-varying Feature Identification, (OSU-CISRC-6/14-TR13), 2013. [Tech. Report]

Talks/Seminars • Paper presentation at 6th International Workshop on In Situ Visualization – held in conjunction with ISC High Performance, June 2022

Title: In Situ Analysis and Visualization of Extreme-Scale Particle Simulations

• Lightning paper talk at DOE ASCR Workshop on Visualization for Scientific Discovery, Decision-Making, & Communication, Jan. 2022.

Title: Model-based Visual Analytics of Big Data: Challenges and Opportunities

- Paper presentation at IEEE International Conference on Big Data (IEEE BigData), December 2021. Title: In Situ Adaptive Spatio-Temporal Data Summarization
- Paper presentation at In Situ Infrastructures for Enabling Extreme-scale Analysis and Visualization (ISAV), Nov. 2021.

Title: In Situ Climate Modeling for Analyzing Extreme Weather Events

• Invited technical seminar talk hosted by the E.C.E. Dept. of Netaji Subhash Engineering College (NSEC), Nov. 2021.

Title: Data Exploration at Exascale: Challenges, Solutions, and Opportunities

• Invited panel member: NSF Center on Pervasive Personalized Intelligence for IoT Systems Scale-up, June 2021.

Title: Opportunities and challenges on using Data Visualization

- Invited technical talk at Los Alamos Arizona Days Conference, May 2021. Title: Statistical Techniques for Enabling Extreme-scale Data Summarization, Feature Exploration, and Visual Analysis
- Invited research talk at Information Sciences Group (CCS-3), Los Alamos National Laboratory, May

Title: Statistical and Machine Learning Techniques for Enabling Extreme-scale Data Summarization, Feature Exploration, and Visual Analysis

• Early career research talk at U.S. Department of Energy Computer Graphics Forum (DOECGF), April 2021.

Title: Extreme-scale Data Reduction, Feature Exploration, and Visual Analysis

- U.S. Department of Energy Computer Graphics Forum (DOECGF), April 2021. Title: Facilities and Research Update for Los Alamos National Laboratory
- 5th Exascale Computing Project (ECP) Annual Meeting, April 2021. Title: In Situ Scalable Data Reduction and Feature Exploration Algorithms for Exascale Simula-
- LDRD: In Situ Inference, Los Alamos National Lab, Project review. December 2020. **Title:** In Situ Climate Modeling and Analysis
- 4th Exascale Computing Project (ECP) Annual Meeting, February 2020. Title: In situ Statistical Feature Detection, Characterization, and Tracking
- Tutorial: ACM SIGGRAPH Asia Symposium on Visualization, November 2017.

Title: Information Theory in Visualization (Co-delivered a tutorial session on behalf of Prof. Han-Wei Shen)

- Paper presentation at ACM SIGGRAPH Asia Symposium on Visualization, November 2017. **Title:** Pointwise Information Guided Visual Analysis of Time-varying Multi-fields
- Paper presentation at IEEE Pacific Visualization, April 2017.

Title: Homogeneity Guided Probabilistic Data Summaries for Analysis and Visualization of Large-Scale Data Sets

- Paper presentation at IEEE Visualization, October 2016.
 - Title: In situ Distribution Guided Analysis and Visualization of Transonic Jet Engine Simulations
- Invited technical talk at Statistical Sciences Group (CCS-6), Los Alamos National Laboratory, July 2016.

Title: Distribution-driven data analysis and visualization

• Paper presentation at IEEE Visualization, October 2015.

Title: Distribution Driven Extraction and Tracking of Features for Time-varying Data Analysis

Service & Professional Activities

Workshop Co-organizer: Visualization in Environmental Sciences (EnvirVis) (Co-located with EuroVis and EUROGRAPHICS (2020-22)

Co-chair: IEEE Visualization Application Spotlights (2021-22)

Co-chair: IEEE Visualization Open Practices (2019-20)

Co-lead: Data Science at Scale Summer School, Los Alamos National Lab. (2020-22)

Member of review board: IEEE Transactions on Parallel and Distributed Systems (TPDS) (2021)

Topic editor and member of review board: MDPI Entropy Journal (2021)

Board member: Student Program Advisory Committee, Los Alamos National Laboratory (2021-present)

Poster judge: ACSESS event for Computational Science Research Center (CSRC) graduate students at San Diego State University (SDSU) (2021)

Poster judge: Los Alamos National Laboratory Student Symposium (2021)

Session chair: Visualization in Environmental Sciences (EnvirVis 2021)

Tutorial Co-organizer: Statistical Data Representation, Visualization, and Uncertainty Analysis at IEEE Visualization (IEEEVIS 2019)

Co-organizer of Application Spotlights: Feature-based Visual Interactive Systems to Optimize Decision Making at IEEE Visualization (IEEEVIS 2019)

IPC member: IEEE Visualization (Full Papers) (IEEEVIS 2022)

IPC member: IEEE Pacific Visualization (PacificVis 2021-22)

IPC member: EuroGraphics Symposium on Parallel Graphics and Visualization (EGPGV 2021-22)

IPC member: IEEE Visualization (Short Papers) (2019-21)

IPC member: IEEE Symposium on Large Data Analysis and Visualization (LDAV 2019, 2021-22)

IPC member: Visualization in Environmental Sciences (EnvirVis 2019)

IPC member: ACM ISAV (2019-21)

IPC member: International Symposium on Visual Computing (ISVC 2019-22)

IPC member at other venues: IEEE IWBDR 2020-21, IVAPP 2020

Reviewing Activities

IEEE Transactions on Visualization & Computer Graphics (TVCG)

IEEE Transactions on Parallel & Distributed Systems (TPDS)

Computer Graphics Forum (CGF)

IEEE Visualization Conference

IEEE Transactions on Instrumentation & Measurement (TIM)

IEEE Transactions on Network Science & Engineering (TNSE)

EG/VGTC Conference on Visualization (EuroVis)

IEEE Pacific Visualization (PacificVis)

In Situ Infrastructures for Enabling Extreme-scale Analysis and Visualization (ISAV)

Knowledge-based Systems (KNOWSYS)

Journal of Visualization (JOVI)

IEEE Symposium on Large Data Analysis and Visualization (LDAV)

MDPI Journals (Entropy, Algorithms, Sustainability, International Journal of Geo-Information)

ACM Conference on Human Factors in Computing Systems (CHI)

Visualization in Environmental Sciences (EnvirVis)

Reviewer at other venues: IEEE IWBDR, ISVC, VISUAL

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