



7<sup>th</sup> International Conference on  
**GEOMETRIC SCIENCE  
 OF INFORMATION**  
**GSI'25**  
**Saint-Malo, France**  
**29<sup>th</sup> to 31<sup>st</sup> October 2025**

From Classical to Quantum Information Geometry

**CALL FOR PAPERS**

**CONFERENCE CO-CHAIRS:**

**Frank Nielsen**

Sony Computer Science Laboratories Inc, Japan

**Frédéric Barbaresco**

President of SEE ISIC Club

Thales Land & Air Systems, Velizy, France



**FIRST ANNOUNCEMENT AND CALL FOR PAPERS:**

As for GSI'13/GSI'15/GSI'17/GSI'19/GSI'21/GSI'23, the objective of this 7<sup>th</sup> SEE GSI'25 conference, hosted in Saint-Malo, is to bring together pure/applied mathematicians and engineers, with common interest for Geometric tools and their applications for Information analysis and Learning. It emphasizes an active participation of young researchers to discuss emerging areas of collaborative research on "Geometric Science of Information and their Applications".

GSI presents a panorama of Geometric Tools emphasizing mathematical theory, physical model, computational methods, and applications in mathematics, physics, statistics, engineering, signal/image processing, machine learning and data science.

The Conference will be therefore held in areas of topics of mutual interest with the aim to:

- Provide an overview on the most recent state-of-the-art
- Exchange mathematical information/knowledge/expertise in the area

This conference will be an interdisciplinary event and will unify skills from Physics, Geometry, Probability and Information Theory. Proceedings are published in Springer's Lecture Note in Computer Science series.

Gala Diner will take place in the Corsair's Mansion.

**TOPICS OF INTERESTS INCLUDE BUT ARE NOT LIMITED TO:**

- Geometric Learning and Differential Invariants on Homogeneous Spaces
- Statistical Manifolds and Hessian information geometry
- Renyi Entropy & Information
- Geometric Foliation Structures of Dissipation and Machine Learning
- Geometric Structures of Quantum Information & Processing
- Applied Geometric Learning
- Probability, Information and Topology (fundamentals & applications)
- Divergences in Statistics and Machine Learning
- Geometric Statistics
- Geometric Methods in Hybrid Classical/Quantum Systems
- Computational Information Geometry and Divergences
- Geometric Methods in Thermodynamics
- The Geometry of Classical & Quantum States
- Geometric Mechanics
- Geometric Green & Quantum Machine Learning
- Stochastic Geometric Dynamics
- New trends in Nonholonomic Systems
- Learning of Dynamic Processes
- Neurogeometry
- PINN (Physics-Informed Neural Network) with Geometric Structures
- Lie Groups in Machine Learning
- Information Geometry, Toric Manifold (Delzant Theory)
- A symplectic approach to differential equations
- Lie Group Based Method in Robotics & Kalman Filters
- Geometric and Analytical Aspects of Quantization and Non-Commutative Harmonic Analysis on Lie Groups
- Probability and Statistics on manifolds
- Deep learning: Methods, Analysis and Applications to Mechanical Systems
- Integrable Systems and Information Geometry (From Classical to Quantum)
- Computing Geometry & Algebraic Statistics

**IMPORTANT DATES:**

- **CMT (Microsoft Research) opening:**  
February 17<sup>th</sup>, 2025
- **Deadline for 8 pages SPRINGER LNCS format:**  
April 2<sup>nd</sup>, 2025
- **Notification of acceptance:**  
June 2<sup>nd</sup>, 2025
- **Camera-ready submission:**  
July 1<sup>st</sup>, 2025
- **Registration opening:**  
August 4<sup>th</sup>, 2025
- **Registration deadline for hardcopy of proceedings:**  
September 15<sup>th</sup>, 2025

**Sponsors & editors:**



**Secretariat:**

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[www.conference-gsi.org](http://www.conference-gsi.org)

